

HEALTH RESEARCH & POLICY (HRP)

HRP 199. Undergraduate Research. 1-18 Unit.

Students undertake investigations sponsored by individual faculty members. Prerequisite: consent of instructor.

HRP 201A. Health Policy Graduate Student Tutorial I. 1-2 Unit.

Seminar series is the core tutorial for first-year Health Policy PhD students and all MS Health Policy students. Major themes in fields of study including health insurance, healthcare financing and delivery, health systems and reform and disparities in the US and globally, health and economic development, health law and policy, resource allocation, efficiency and equity, healthcare quality, measurement and the efficacy and effectiveness of interventions. Blocks of session led by Stanford expert faculty in particular fields of study. 2 unit registration requires written responses to assigned reading questions.

Same as: MED 215A

HRP 201B. Health Policy Graduate Student Tutorial II. 1-2 Unit.

Second in a three-quarter seminar series, the core tutorial is for first-year Health Policy PhD students and all MS Health Policy students. Major themes in fields of study including health insurance, healthcare financing and delivery, health systems and reform and disparities in the US and globally, health and economic development, health law and policy, resource allocation, efficiency and equity, healthcare quality, measurement and the efficacy and effectiveness of interventions. Blocks of session led by Stanford expert faculty in particular fields of study.

Same as: MED 215B

HRP 201C. Health Policy Graduate Student Tutorial III. 1-2 Unit.

Third in a three-quarter seminar series, the core tutorial is for first-year Health Policy PhD students and all MS Health Policy students. Major themes in fields of study including health insurance, healthcare financing and delivery, health systems and reform and disparities in the US and globally, health and economic development, health law and policy, resource allocation, efficiency and equity, healthcare quality, measurement and the efficacy and effectiveness of interventions. Blocks of session led by Stanford expert faculty in particular fields of study.

Same as: MED 215C

HRP 204. Models for Understanding and Controlling Global Infectious Diseases. 3-4 Units.

(HUMBIO students must enroll in HUMBIO 154D. Med/Graduate students must enroll in HRP 204.) This course introduces students to the dynamics of infectious diseases of global health importance, focusing on the use of mathematical models to characterize their transmission in populations. Relevant case examples of pathogens with differing natural history and transmission routes include tuberculosis, HIV, malaria, typhoid, and cholera, as well emerging infectious diseases such as Ebola and the 2019 novel coronavirus. Lectures will emphasize the theoretical basis underlying infectious disease dynamics and link them to in-class workshops and problem sets that will emphasize public health applications and will provide students with hands-on experience in creating and coding models. Students will learn the mathematical underpinnings of key topics in infectious disease transmission including herd immunity, the basic reproductive number, vaccine effects, social contact structure, host heterogeneities, and pathogen fitness. The course will teach students how to approach new questions in infectious disease transmission, from model selection, tradeoffs in model complexity or parsimony, parameterization, sensitivity and uncertainty analyses.

Students will practice building models, evaluating the influence of model parameters, making predictions about disease trajectories, and projecting the impact of public health interventions. Prerequisites: HUMBIO 88 or 89 or STATS 141 or BIOSCI 141.

Same as: HUMBIO 154D

HRP 207. Introduction to Concepts and Methods in Health Services and Policy Research I. 2 Units.

Primarily for medical students in the Health Services and Policy Research scholarly concentration. Topics include health economics, statistics, decision analysis, study design, quality measurement, cost benefit and effectiveness analysis, and evidence based guidelines.

HRP 208. Introduction to Concepts and Methods in Health Services and Policy Research II. 2 Units.

Primarily for medical students in the Health Services and Policy Research scholarly concentration; continuation of 207. Topics include health economics, statistics, decision analysis, study design, quality measurement, cost benefit and effectiveness analysis, and evidence based guidelines. Recommended: 207.

HRP 209. Health Law: The FDA. 2-3 Units.

(Same as LAW 3003) Open to law and medical students; other graduate students by consent of instructor. The FDA's regulatory authority over drugs, biologics, medical devices, and dietary supplements. The nature of the pharmaceutical, biotech, medical device, and nutritional supplement industries.

HRP 211. Law and Biosciences: Neuroscience. 3 Units.

(Same as LAW 3006) Legal, social, and ethical issues arising from advances in neuroscience, including effects upon law and society through improvements in predicting illnesses and behaviors, reading minds through neuroimaging, understanding responsibility and consciousness, treating criminal behavior, and cognitive enhancement.

HRP 213. Writing in the Sciences. 2-3 Units.

Primarily for medical students in the Clinical Research Scholarly concentration; open to graduate students except Epidemiology graduate students. Development of research questions and plans for statistical analysis. Study design, sample size and power calculations, and statistical analysis of study data. Analytic methods to carry out statistical power and sample size calculations. Prerequisites: 225, and 258 or 259, or consent of instructor.

HRP 218. Methods for Health Care Delivery Innovation, Implementation and Evaluation. 2 Units.

Preference given to postgraduate fellows and graduate students. Focus is on implementation science and evaluation of health care delivery innovations. Topics include implementation science theory, frameworks, and measurement principles; qualitative and quantitative approaches to designing and evaluating new health care models; hybrid design trials that simultaneously evaluate implementation and effectiveness; distinction between quality improvement and research, and implications for regulatory requirements and publication; and grant-writing strategies for implementation science and evaluation. Students will develop a mock (or actual) grant proposal to conduct a needs assessment or evaluate a Stanford/VA/community intervention, incorporating concepts, frameworks, and methods discussed in class. Priority for enrollment for CHPR 212 will be given to CHPR master's students.

Same as: CHPR 212, MED 212

HRP 221. Law and the Biosciences: Genetics. 3 Units.

(Same as LAW 3004) Open to all law or medical students; other graduate students by consent of the instructor. Focus is on ethical, legal, and social issues arising from advances in our knowledge of human genetics. Includes forensic uses of genetics, genetic testing, widespread whole genome sequencing, the consequences of genetics for human reproduction, and the ethics of genomic biobanks for research. Research paper required.

HRP 224. Social Entrepreneurship and Innovation Lab (SE Lab) - Human & Planetary Health. 3-4 Units.

Social Entrepreneurship and Innovation Lab (SE Lab) - Global & Planetary Health is a Collaboratory workshop for students/fellows to design and develop innovative social ventures addressing key challenges in health and the environment, especially in support of the UN Sustainable Development Goals (SDGs 2030). Your mandate in identifying problems and designing solutions is broad and flexible! SE Lab is open to students and fellows across Stanford and combines design thinking exercises, short lectures & case studies, workshops, small group teamwork, presentations, guest speakers, and faculty, practitioner and peer feedback to support you and your team in generating and developing ideas and projects that will change the world! Join SE Lab with an idea or simply the desire to join a team. Enrollment limited to 30.
Same as: MED 224, PUBLPOL 224

HRP 232. Measurement for Health Policy. 3 Units.

Conceptual, technical and empirical basis for measurement essential to health policy. Principles and good practice for designing measures fit for purpose. Practical application of measurement concepts and methods. Main emphasis on measuring levels of health in individuals and populations, combining mortality/longevity and quality of life/functioning. Additional topics include measurement of inequalities and health care quality. Examples and applications include high income and low/middle-income settings.
Same as: MED 251

HRP 243. Health Policy Seminar: Population Health. 1 Unit.

This seminar course is intended to introduce students to the role of policy in public health in the United States. In addition to speakers from the law school, SIEPR, HRP, and School of Medicine, we will be bringing in speakers from outside organizations in the Bay Area with expertise in a variety of issues in public health. There are no assignments and lunch will be provided.

HRP 246. Seminar in Healthcare Quality and Safety. 1 Unit.

Primarily for medical students in the Quality and Safety Scholarly Concentration. Almost everyone will be a patient at some point in their lives. It is estimated that over 98,000 patients die in US hospitals each year due to medical errors and recent articles suggest that medical errors are the third leading cause of death in the US. Patient safety is the foundation of high-quality health care, which has become a critical issue in health policy discussions. This course will provide an overview of the quality & patient safety movement, the array of measurement techniques and issues, and perspectives of quality improvement efforts under the current policy landscape. Lunch will be provided for enrolled students.
Same as: BIOMEDIN 246

HRP 249. Topics in Health Economics I. 3-5 Units.

Course will cover various topics in health economics, from theoretical and empirical perspectives. Topics will include public financing and public policy in health care and health insurance; demand and supply of health insurance and healthcare; physicians' incentives; patient decision-making; competition policy in healthcare markets, intellectual property in the context of pharmaceutical drugs and medical technology; other aspects of interaction between public and private sectors in healthcare and health insurance markets. Key emphasis on recent work and empirical methods and modelling. Prerequisites: Micro and Econometrics first year sequences (or equivalent). Curricular prerequisites (if applicable): First year graduate Microeconomics and Econometrics sequences (or equivalent).
Same as: ECON 249, MED 249

HRP 252. Outcomes Analysis. 4 Units.

Methods of conducting empirical studies which use large existing medical, survey, and other databases to ask both clinical and policy questions. Econometric and statistical models used to conduct medical outcomes research. How research is conducted on medical and health economics questions when a randomized trial is impossible. Problem sets emphasize hands-on data analysis and application of methods, including re-analyses of well-known studies. Prerequisites: one or more courses in probability, and statistics or biostatistics.
Same as: BIOMEDIN 251, MED 252

HRP 254. Quality & Safety in U.S. Healthcare. 3 Units.

The course will provide an in-depth examination of the quality & patient safety movement in the US healthcare system, the array of quality measurement techniques and issues, and perspectives of quality and safety improvement efforts under the current policy landscape.
Same as: BIOMEDIN 254

HRP 256. Economics of Health and Medical Care. 5 Units.

Institutional, theoretical, and empirical analysis of the problems of health and medical care. Topics: demand for medical care and medical insurance; institutions in the health sector; economics of information applied to the market for health insurance and for health care; measurement and valuation of health; competition in health care delivery. Graduate students with research interests should take ECON 249. Prerequisites: ECON 50 and either ECON 102A or STATS 116 or the equivalent. Recommended: ECON 51.
Same as: BIOMEDIN 156, BIOMEDIN 256, ECON 126

HRP 257. Advanced Topics in the Economics of Health and Medical Care. 2 Units.

Emphasis is on research studies in health economics. Seminar style course focuses on health economics. Complimentary with HRP 256. Students will be expected to read and present papers to the group and discuss concepts with faculty. Restricted to second year or beyond PhD students in economics & economics-related disciplines.
Same as: MED 265

HRP 263. Advanced Decision Science Methods and Modeling in Health. 3 Units.

Advanced methods currently used in published model-based cost-effectiveness analyses in medicine and public health, both theory and technical applications. Topics include: Markov and microsimulation models, model calibration and evaluation, and probabilistic sensitivity analyses. Prerequisites: a course in probability, a course in statistics or biostatistics, a course on cost-effectiveness such as HRP 392, a course in economics, and familiarity with decision modeling software such as TreeAge.
Same as: MED 263

HRP 276. Introduction to Law and the Biosciences. 3 Units.

(SAME AS LAW 3012) This course will provide an introduction to the legal, ethical, and policy areas important to understanding Law and the Biosciences. Each topic will include both discussion of the relevant legal rules and ethical principles and their application to a specific case study. Topics to be covered include the structure and regulation of the biopharma industry and biosciences research, intellectual property relevant to the biosciences, federal regulation of bioscience products through the FDA and otherwise, the health care financing system, human subjects research, genetic technologies, reproductive technologies, neuroscience technologies, criminal law applications of bioscience technologies, and more. The course will prepare students for more advanced courses in these areas, as well as for working with or in the bioscience world. Special Instructions: The class is open to all law students and graduate or professional students from other parts of the University. Some undergraduates may be admitted with consent of the instructor. Substantial class attendance is required; in addition, the quality of class participation will play a small role in grading. Elements used in grading: Attendance, class participation, and final exam (In-school, open book). Cross listed with Health Research and Policy (HRP - TBA).

HRP 281. Spanish for Medical Students. 2 Units.

Second quarter of three-quarter series. Goal is a practical and culturally appropriate command of spoken Spanish. Emphasis is on performing a physical examination. Topics include anatomy, general hospital procedures, reproductive health, emergency medicine, and essential doctor-patient phrases when dealing with Spanish-speaking patients. Series can be taken independently, depending on the level of prior knowledge. Undergraduates are welcome to enroll.

Same as: SPANLANG 122M

HRP 282. Spanish for Medical Students. 2 Units.

Third quarter of three-quarter series. Goal is a practical and culturally appropriate command of spoken Spanish. Emphasis is on different specialties and medical conditions. Topics include anatomy, diagnostic procedures, HIV, diabetes, hypertension, and essential doctor-patient phrases when dealing with Spanish-speaking patients. Series can be taken independently, depending on the level of prior knowledge. Undergraduates are welcome to enroll.

Same as: SPANLANG 123M

HRP 283. Health Services Research Core Seminar. 1 Unit.

Presentation of research in progress and tutorials in the field of health services research.

HRP 285. Global Leaders and Innovators in Human and Planetary Health. 1-2 Unit.

Are you interested in innovative ideas and strategies for addressing urgent challenges in human and planetary health? This 7 session lecture series features a selection of noteworthy leaders, innovators and experts across diverse sectors in health and the environment such as: healthcare/medical innovation, environmental sustainability, foundations/venture capital, biotechnology/pharmaceuticals, social innovation/entrepreneurship, tech/media and artificial intelligence (AI), human rights, global poverty/development, sustainable agriculture/hunger/nutrition, public policy/systems change. Co-convener by faculty, fellows and students collaborating across several Stanford centers/departments/schools, the course invites the discussion of global problems, interdisciplinary perspectives and solutions in the fields of health and the environment. nSpecial themes for AY 2020-2021 include: 1) US and Global Responses in Combatting the Coronavirus Pandemic; 2) Climate Crisis, Wildfires, Extreme Weather and Environmental Sustainability; 3) Systemic Racism, Gender Inequality, Health Inequity and Community Well Being; 4) Democracy Under Siege, Political Landscape of Electoral, Judicial, Legislative Turmoil; 5) Partnership/Collaboration, Models of Leadership, Innovation, Sustainable Social Change; and Other Topics TBD by students/fellows. Students from all backgrounds are encouraged to enroll - registration open to all Stanford students and fellows. May be repeated for credit.

Same as: MED 285

HRP 299. Directed Reading in Health Research and Policy. 1-18 Unit.

Epidemiology, health services research, preventive medicine, medical genetics, public health, economics of medical care, occupational or environmental medicine, international health, or related fields. May be repeated for credit. Prerequisite: consent of instructor.

HRP 370. Medical Scholars Research. 4-18 Units.

Provides an opportunity for student and faculty interaction, as well as academic credit and financial support, to medical students who undertake original research. Enrollment is limited to students with approved projects.

HRP 391. Health Law: Finance and Insurance. 3 Units.

(SAME AS LAW 3001, MGTECON 331) This course provides the legal, institutional, and economic background necessary to understand the financing and production of health services in the U.S. We will discuss the Affordable Care Act, health insurance (Medicare and Medicaid, employer-sponsored insurance, the uninsured), the approval process and IP protection for pharmaceuticals, and antitrust policy. We may discuss obesity and wellness, regulation of fraud and abuse, and medical malpractice. The syllabus for this course can be found at <https://syllabus.stanford.edu>. Elements used in grading: Participation, attendance, class presentation, and final exam.

Same as: PUBLPOL 231

HRP 392. Analysis of Costs, Risks, and Benefits of Health Care. 4 Units.

For graduate students. How to do cost/benefit analysis when the output is difficult or impossible to measure. Literature on the principles of cost/benefit analysis applied to health care. Critical review of actual studies. Emphasis is on the art of practical application.

Same as: BIOMEDIN 432

HRP 399. Graduate Research. 1-18 Unit.

Investigations sponsored by individual faculty members. Prerequisite: consent of instructor.

HRP 800. Second Year Health Policy PHD Tutorial. 1-3 Unit.

The goal of the second year tutorial is to provide PHD students with advanced training in health policy research and to assist them in successfully developing research proposals.

HRP 801. TGR Project. 0 Units.

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HRP 802. TGR Dissertation. 0 Units.

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HRP 890. Introduction to Cross Cultural Issues in Medicine. 3 Units.

Preference to sophomores. Introduction to social factors that impact health care delivery, such as ethnicity, immigration, language barriers, and patient service expectations. Focus is on developing a framework to understand culturally unique and non-English speaking populations in the health care system.