

HEALTH RESEARCH AND POLICY

Courses offered by the Department of Health Research and Policy are listed under the subject code HRP on the Stanford Bulletin's ExploreCourses web site.

The Department of Health Research and Policy has two principal areas of scholarly interest:

1. Epidemiology is the study of the distribution and determinants of illness and impairment in human populations. Epidemiology training provides analytic tools for clinical and translational research, including studies of disease etiology, prevention, and therapy.
2. Health Policy/Health Services Research is concerned with many aspects of health policy analysis in the public and private sectors.

Graduate Programs in Health Research and Policy

The programs in Epidemiology and the programs in Health Policy are housed in the Department of Health Research and Policy. These programs offer master's degrees and doctoral degrees in Epidemiology and Clinical Research and in Health Policy.

For additional information, send email to hrpadmissions@stanford.edu.

The department offers a Master of Science in Health Policy and a Master of Science in Epidemiology & Clinical Research.

Master of Science in Health Policy

University requirements for the M.S. degree are described in the "Graduate Degrees (<http://exploreddegrees.stanford.edu/graduatedegrees>)" section of this bulletin.

The master's degree program in Health Policy seeks to train students in the quantitative analysis of issues in health and medical care. The program is based upon an individual development plan, and includes both course work and completion of a master's project under the direction of a program core faculty member. The typical student in the program is a physician who has completed residency training and is preparing for a research career; the program also admits Stanford medical students and others with a strong background in health policy analysis. The core faculty interests include outcomes research, health economics, health care organization, health care access, implementation science, quality of care, decision analysis, clinical guidelines, and assessment of patient preferences and quality of life.

To receive the degree, students are expected to demonstrate knowledge of issues in health policy and the quantitative skills necessary for research in this area. Students must take at least 45 units of course work and write a University thesis. The course work requirements are:

Required Courses:

		Units
HRP 261	Intermediate Biostatistics: Analysis of Discrete Data	3
HRP 262	Intermediate Biostatistics: Regression, Prediction, Survival Analysis	3
HRP 391	Health Law: Finance and Insurance	3
HRP 392	Analysis of Costs, Risks, and Benefits of Health Care	4
Required for students funded by NIH training grants:		
MED 255	The Responsible Conduct of Research	1

OR

MED 255C	The Responsible Conduct of Research for Clinical and Community Researchers	1
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Concentration Requirements:

		Units
Choose 1 of the following Concentration Courses:		
HRP 218	Methods for Health Care Delivery Innovation, Implementation and Evaluation	2
HRP 252	Outcomes Analysis	4
HRP 256	Economics of Health and Medical Care	5
HRP 263	Advanced Decision Science Methods and Modeling in Health	3

Thesis Units:

		Units
At least 12 units of thesis units:		
HRP 399	Graduate Research	12-15

Pre-approved electives include:

Additional approved elective courses to complete the program total of at least 45 units. Other electives, consistent with the student's individual development plan, may be approved by the student's faculty adviser and the program director.

		Units
HRP 206	Meta-research: Appraising Research Findings, Bias, and Meta-analysis	3
HRP 214	Scientific Writing	2-3
HRP 219	Evaluating Technologies for Diagnosis, Prediction and Screening	3
HRP 223	Introduction to Data Management and Analysis in SAS	2
HRP 229	Spectrum Scholars Seminar	1
HRP 234	Engineering Better Health Systems: modeling for public health	4
HRP 249	Topics in Health Economics I	2-5
HRP 254	Quality & Safety in U.S. Healthcare	3
HRP 251	Design and Conduct of Clinical Trials	3
HRP 258	Introduction to Probability and Statistics for Clinical Research	3
HRP 259	Introduction to Probability and Statistics for Epidemiology	3
HRP 264	Foundations of Statistical and Scientific Inference	1
GSBGEN 551	Innovation and Management in Health Care	2
MED 129	Health Care Systems Around the World	4
MED 236	Economics of Infectious Disease and Global Health	3
MED 273	Biodesign for Digital Health	3
PEDS 202A	Practical Applications for Qualitative Data Analysis	3
PEDS 202B	Practical Applications for Qualitative Data Analysis	3
STATS 216	Introduction to Statistical Learning	3
STATS 266	Advanced Statistical Methods for Observational Studies	2-3

For additional information on course requirements and admissions process, please see our department website (http://med.stanford.edu/hsr/grad_programs/mshsr.html).

Please address inquiries to the HRP Education Program Manager at 650-723-5456 or hrpadmissions@stanford.edu.

Master of Science in Epidemiology and Clinical Research

University requirements for the M.S. degree are described in the "Graduate Degrees (<http://exploreddegrees.stanford.edu/graduatedegrees>)" section of this bulletin.

The Graduate Program in Epidemiology offers instruction and interdisciplinary research opportunities leading to the M.S. degree in Epidemiology and Clinical Research. Epidemiology is the study of the distribution and determinants of illness and impairment in human populations. Epidemiologic methods are used by clinical investigators and by other scientists who conduct observational and experimental research on the identification, prevention, and treatment of human disorders.

Core and affiliated faculty come from the Department of Health Research and Policy and other Stanford University departments. The program has particular strengths in cancer epidemiology, cardiovascular disease epidemiology, epidemiologic methods, genetic epidemiology, global health, infectious disease epidemiology, musculoskeletal disease epidemiology, neuroepidemiology, and reproductive epidemiology and women's health. Students can select an optional concentration in global health or infectious diseases.

The mission of the Stanford University School of Medicine is to be a premier research-intensive medical school that improves health through leadership, diversity, and collaborative discoveries and innovation in patient care, education and research. The Graduate Program in Epidemiology fosters this mission through the training of physician investigators in techniques of clinical research. The department also welcomes students from other disciplines who would benefit from formal training in epidemiologic methods. The master's degree in Epidemiology and Clinical Research provides students with the skills essential to patient-oriented clinical research, including epidemiologic methods and statistical analysis.

For undergraduates at Stanford University, the program offers a coterminal M.S. in Epidemiology and Clinical Research. Coterminal students have the opportunity to pursue epidemiological research at the intersection of public health, disease treatment, and disease prevention. Additional information on our coterminal M.S. program can be found on our department website (<http://med.stanford.edu/epidemiology/coterm.html>).

To receive the M.S. degree, students are expected to obtain a grounding in epidemiologic methods and applied biostatistics and to demonstrate research skills through the completion of a thesis. The master's degree program is typically completed in two years (four to six quarters).

Students must complete at least 45 units of approved course work as well as a master's thesis which is usually based on original research related to clinical epidemiology.

REQUIRED COURSES:

Epidemiologic methods:

		Units
HRP 225	Design and Conduct of Clinical and Epidemiologic Studies	3

HRP 226	Intermediate Epidemiologic and Clinical Research Methods	3
HRP 251	Design and Conduct of Clinical Trials	3

Biostatistics:

		Units
HRP 259	Introduction to Probability and Statistics for Epidemiology	3
HRP 261	Intermediate Biostatistics: Analysis of Discrete Data	3
HRP 262	Intermediate Biostatistics: Regression, Prediction, Survival Analysis	3

Research seminar:

		Units
HRP 236	Epidemiology Research Seminar (at least 3 units)	1

Research:

		Units
HRP 399	Graduate Research (at least 12 units)	12

Research conduct:

		Units
MED 255	The Responsible Conduct of Research	1
OR		
MED 255C	The Responsible Conduct of Research for Clinical and Community Researchers	1

Other approved selective and elective courses to complete the program total of at least 45 units.

Pre-approved Electives

		Units
HRP 206	Meta-research: Appraising Research Findings, Bias, and Meta-analysis	3
HRP 212	Cross Cultural Medicine	3
HRP 214	Scientific Writing	2-3
HRP 216	Analytical and Practical Issues in the Conduct of Clinical and Epidemiologic Research	2-3
HRP 218	Methods for Health Care Delivery Innovation, Implementation and Evaluation	2
HRP 219	Evaluating Technologies for Diagnosis, Prediction and Screening	3
HRP 223	Introduction to Data Management and Analysis in SAS	2
HRP 231	Epidemiology of Infectious Diseases	3
HRP 234	Engineering Better Health Systems: modeling for public health	4
HRP 235	Designing Research-Based Interventions to Solve Global Health Problems	3-4
HRP 237	Practical Approaches to Global Health Research	3
HRP 238	Genes and Environment in Disease Causation: Implications for Medicine and Public Health	2-3
HRP 239	Statistical Methods for Group Comparisons and Causal Inference	3
HRP 244	Developing Measurement Tools for Health Research	2
HRP 249	Topics in Health Economics I	2-5

HRP 252	Outcomes Analysis	4
HRP 254	Quality & Safety in U.S. Healthcare	3
HRP 256	Economics of Health and Medical Care	5
HRP 263	Advanced Decision Science Methods and Modeling in Health	3
HRP 264	Foundations of Statistical and Scientific Inference	1
HRP 265	Advanced Methods for Meta-Analysis	2
HRP 267	Life Course Epidemiology	2
HRP 292	Advanced Statistical Methods for Observational Studies	2-3
HRP 391	Health Law: Finance and Insurance	3
HRP 392	Analysis of Costs, Risks, and Benefits of Health Care	4

Any graduate level HRP courses with primary focus on epidemiology or health services content or methods can be taken as electives, if approved by the student's epidemiology advisor.

Notes:

- HRP 251 is recommended but not required for coterminal students and students in designated tracks.
- Students are assigned a methodology mentor from the Division of Epidemiology and they also select a research mentor, who may be from another department. For physicians, the research mentor is often a faculty member from the department of the student's clinical specialty.
- See the Division of Epidemiology web site (http://med.stanford.edu/epidemiology/grad_programs/MS-overview) for additional information regarding our program and admissions process.
- Address inquiries to the HRP Education Program Manager at 650-723-5456 or hrpadmissions@stanford.edu.

Coterminal Master of Science in Epidemiology and Clinical Research

The coterminal master's degree is available only to current Stanford undergraduates. The M.S. entails a minimum of 45 units of course work but can require more depending upon the courses chosen and the previous training of the student; a minimum of 12 units must be applied towards the master's thesis.

The coterminal Master of Science program follows the same program requirements as the Master of Science (academic), except that the student is not required to take the course in Clinical Trials. Students who desire to concentrate in a specific area can participate in one of the track areas (Infectious Diseases, Global Health), although this is not required. To pursue a research project, the student must make arrangements with program faculty. Coterminal students are enrolled full-time and courses are taken on campus. Graduates of this program are prepared to contribute creatively to basic or applied projects in epidemiology and clinical research. The department anticipates that many go on to Ph.D. programs, M.D. degrees, or to pursue careers in public health, pharma or biotech.

Coterminal students must have at least one quarter of overlap in the undergraduate and graduate career prior to conferring their undergraduate degree. See the "Coterminal Degrees (<http://exploreddegrees.stanford.edu/cotermdegrees>)" section of this bulletin for additional details. See also the Registrar's coterminal degrees (<https://registrar.stanford.edu/students/coterminal-degree-programs>) pages.

Funding Sources

Access to financial aid and other options for coterminal students depends on the number of units and quarters as a registered student

at Stanford. Coterminal students have full access to undergraduate sources of financial aid until their twelfth quarter or four years of study. Coterminal students who have completed 180 units are eligible for University fellowships and assistantships. However, many federal and private fellowships and assistantships are awarded only to students who have received the bachelor's degree. Even after the conferral of the bachelor's degree, there is no guarantee that a coterminal student be awarded financial support via a RA-ship, TA-ship, or fellowship.

Coterminals may choose to obtain their bachelor's degree early after completion of requirements. However, all classes after conferral of the degree may only be counted towards the graduate degree. Part of the strategy that allows coterminals maximal flexibility in their course of study is their dual status as both undergraduate and graduate student.

For additional information on the application process, see the department's coterminal page (<http://med.stanford.edu/epidemiology/co-term.html>). Address inquiries to the HRP Education Program Manager at 650-723-5456 or hrpadmissions@stanford.edu.

University Coterminal Requirements

Coterminal master's degree candidates are expected to complete all master's degree requirements as described in this bulletin. University requirements for the coterminal master's degree are described in the "Coterminal Master's Program (<http://exploreddegrees.stanford.edu/cotermdegrees>)" section. University requirements for the master's degree are described in the "Graduate Degrees (<http://exploreddegrees.stanford.edu/graduatedegrees/#masterstext>)" section of this bulletin.

After accepting admission to this coterminal master's degree program, students may request transfer of courses from the undergraduate to the graduate career to satisfy requirements for the master's degree. Transfer of courses to the graduate career requires review and approval of both the undergraduate and graduate programs on a case by case basis.

In this master's program, courses taken during or after the first quarter of the sophomore year are eligible for consideration for transfer to the graduate career; the timing of the first graduate quarter is not a factor. No courses taken prior to the first quarter of the sophomore year may be used to meet master's degree requirements.

Course transfers are not possible after the bachelor's degree has been conferred.

The University requires that the graduate adviser be assigned in the student's first graduate quarter even though the undergraduate career may still be open. The University also requires that the Master's Degree Program Proposal be completed by the student and approved by the department by the end of the student's first graduate quarter.

Ph.D. in Epidemiology and Clinical Research

Overview

The field of epidemiology is poised to undergo major changes, and this Ph.D. program offers a cutting-edge curriculum that reflects this shift. Driven by technological advancements, the availability of very large datasets, and the omics revolution, epidemiology is moving toward what some have called Big Epidemiology, where epidemiologists partner with other scientists to study vast amounts of data. Thus, this program will train epidemiologists and clinical researchers to be savvy in technology, computing, data mining, bioinformatics, and genomics. The curriculum capitalizes on Stanford's unique strengths in these disciplines.

After matriculating, students will meet with their academic advisers to plan out an individually tailored curriculum. Students who matriculate with prior training in epidemiology and statistics may replace

introductory core courses with more advanced courses, subject to approval. Beyond core course requirements, students select electives that delve deeper into a particular area of specialization of their choosing. Innovative online learning approaches will help meet the needs of physician-students, who will also be busy with clinical duties.

Students will take core courses in epidemiology and biostatistics. In addition to these core courses, Ph.D. students must additionally take 3 "big epidemiology" elective courses in three key areas:

1. an advanced quantitative course (encompassing statistics, computer science, or economics)
2. a big data course
3. a genetics/genomics/bioinformatics course

Degree Requirements

University requirements for the Ph.D. are described in the "Graduate Degrees (<http://stanford.edu/dept/registrar/bulletin/4901.htm>)" section of this bulletin.

Ph.D. students must complete a minimum of 135 units (as per University requirements), including 45 course units exclusive of HRP 236 Epidemiology Research Seminar, HRP 299 Directed Reading in Health Research and Policy, and HRP 399 Graduate Research .

	Units
Epidemiologic methods sequence	
HRP 225 Design and Conduct of Clinical and Epidemiologic Studies	3
HRP 226 Intermediate Epidemiologic and Clinical Research Methods	3
HRP 251 Design and Conduct of Clinical Trials (Required of students in the clinical research concentration: other doctoral students may opt to replace HRP251 with an alternate epidemiology course.)	3
Biostatistics sequence	
HRP 259 Introduction to Probability and Statistics for Epidemiology	3
HRP/STATS 261 Intermediate Biostatistics: Analysis of Discrete Data	3
HRP 262 Intermediate Biostatistics: Regression, Prediction, Survival Analysis	3
"Big Epidemiology" elective course	
Take one of the following advanced quantitative courses	3-4
Any 200-level STATS course (other than STATS 260)	
STATS 116 Theory of Probability	
HRP 216 Analytical and Practical Issues in the Conduct of Clinical and Epidemiologic Research	
HRP 252 Outcomes Analysis	
HRP 392 Analysis of Costs, Risks, and Benefits of Health Care	
HRP/MED 206/STATS 211 Meta-research: Appraising Research Findings, Bias, and Meta-analysis	
CHPR 290 Curricular Practical Training and Internship	
Big data course	
Take one of the following big data courses	3-4
BIOMEDIN 215 Data Driven Medicine	
CS 246 Mining Massive Data Sets	
STATS 202 Data Mining and Analysis	
CS 229 Machine Learning	
COMM 382 Big Data and Causal Inference	

Genetics/genomics/bioinformatics course

Take one of the following genetics/genomics/bioinformatics courses	3-4
BIOMEDIN 217/CS 275 Translational Bioinformatics	
GENE 244 Introduction to Statistical Genetics	
HUMBIO 151R Biology, Health and Big Data	
GENE 224 Principles of Pharmacogenomics	
BIOMEDIN/DBIO/CS 273A The Human Genome Source Code	
GENE 210/DBIO 220 Genomics and Personalized Medicine	
STATS 345 Statistical and Machine Learning Methods for Genomics	
or GENE 245 Statistical and Machine Learning Methods for Genomics	

Other core courses/requirements

MED 255 The Responsible Conduct of Research	1
Electives	
Take electives chosen in consultation with the academic adviser to total 135 units.	64-71
Total Units Required	135

Additional Requirements

1. Attendance at one meeting of the Human Subjects Panel (Institutional Review Board).
2. Attendance at one meeting of the GCRC Protocol Review Committee.
3. R Proficiency: students must show proficiency in the computing language R or must take an approved course in R.
4. Attendance at the twice monthly Epidemiology and Clinical Research PhD workshops.
5. Doctoral students fulfill the remaining University unit requirements through doctoral dissertation work.

Advising

Academic advising by our faculty is a critical component of our graduate students' education.

All matriculating students will be assigned a faculty adviser from the group of core faculty to help them design their academic program.

The program adheres to the advising guidelines and responsibilities listed by the Office of the Vice Provost for Graduate Education (<https://vpge.stanford.edu/academic-guidance/advising-mentoring>) and in the Graduate Academic Policies and Procedures (<https://gap.stanford.edu/handbooks/gap-handbook/chapter-3/subchapter-3/page-3-3-1>) manual.

See the department's website (http://med.stanford.edu/epidemiology/grad_programs/phd-ecr.html) for additional information on degree requirements and admissions process. Address inquiries to the HRP Education Program Manager at 650-723-5456 or hrpadmissions@stanford.edu.

Ph.D. in Health Policy

Stanford Health Policy, through the Department of Health Research and Policy at the Stanford University School of Medicine, offers a Ph.D. program which promises to educate students to be scholarly leaders in the field of health policy, and to be highly knowledgeable about the theoretical and empirical approaches that can be applied in the development of improvements in health policy and the health care system. The curriculum offers courses across a wide range of

health policy areas including health economics, health insurance and government program operation, health financing, international health policy and economic development, cost-effectiveness analysis and the evaluation of new technologies, relevant statistical and methodological approaches, and health policy issues related to public health concerns such as obesity and chronic disease.

In addition to taking a set of core courses, students are expected to complete course work in one of two tracks:

- *Health Economics*: including the economic behavior of individuals, providers, insurers, and governments and how their actions affect health and medical care.
- *Decision Sciences*: with quantitative techniques to assess the effectiveness and value of medical treatments and for decision making about medical care at the individual and/or collective level.

Requirements

University requirements for the Ph.D. are described in the "Graduate Degrees (<http://exploreddegrees.stanford.edu/graduatedegrees>)" section of this bulletin.

More complete program requirement details are listed on the program website (http://med.stanford.edu/hsr/grad_programs/phd.html) and in the program handbook (link on program website).

Additional requirements:

First Year

- Completion of first-year course work with minimum grades of 'B-' and an overall/average GPA of a B (3.0).
- Individual development plan (IDP) meeting with primary adviser within the first quarter.
- Meeting with adviser(s) on a regular basis, to be determined with adviser(s).
- Completion of course work in the responsible conduct of research.

Second Year

- Completion of second-year course work with minimum grades of 'B-' and an overall/average GPA of a B (3.0).
- Final course work (for both first and second year) must total at least 75 units for both core and track specific courses.
- Individual development plan (IDP) meeting with primary adviser before the end of Autumn Quarter.
- Meeting with adviser(s) on a regular basis, to be determined with adviser(s).
- Completion of second-year paper and funding proposal as part of the second-year tutorial.
- Taking and passing the Written Qualifying Exam.

Third and Fourth Years

- Advancement to Ph.D. Candidacy (see below).
- Taking and passing the department Ph.D. Oral Exam (see below).
- Individual development plan (IDP) meeting with primary adviser before the end of Autumn Quarter.
- Meeting with adviser(s) on a regular basis, to be determined with adviser(s).

Course Work

The minimum number of units required for a Ph.D. degree at Stanford (satisfied both through coursework and research units) is 135.

Complete course work in one of the following two tracks.

Health Economics Track

		Units
Statistical Data Analysis, Econometrics, and Causal Inference		
Required - one year sequence in econometrics:		
ECON 270	Intermediate Econometrics I	2-5
ECON 271	Intermediate Econometrics II	2-5
ECON 272	Intermediate Econometrics III	2-5
OR		
MGTECON 603	Econometric Methods I	4
MGTECON 604	Econometric Methods II	3
MGTECON 605	Econometric Methods III	3
Micro-Economics		
Required - one year sequence in microeconomics:		
ECON 202	Microeconomics I	2-5
ECON 203	Microeconomics II	2-5
ECON 204	Microeconomics III	2-5
Or equivalent: GSBGEN 675 or MGTECON 600 can be substituted for ECON 202 and/or MGTECON 601 can be substituted for ECON 203.		
Discipline-Specific Courses		
Required:		
HRP 249	Topics in Health Economics I	2-5
HRP 257	Advanced Topics in the Economics of Health and Medical Care	2
Choose 4 courses in the following 4 fields in economics:		
Development Economics		
Public Finance		
Labor Economics		
Industrial Organization		
Health Policy		
Required:		
HRP 252	Outcomes Analysis	4
HRP 256	Economics of Health and Medical Care	5
HRP 392	Analysis of Costs, Risks, and Benefits of Health Care	4
Choose 3 additional health-related courses such as:		
HRP 391	Health Law: Finance and Insurance	3
LAW 3002	Health Law: Quality and Safety of Care	3
LAW 3009	Health Law: Improving Public Health	3
Practice of Research		
Required:		
First-year core tutorial (HRP 201A, HRP 201B, and HRP 201C)		
Second-year core tutorial (HRP 800)		
Health Economics Seminar		
Research in Progress Seminar		
MED 255	The Responsible Conduct of Research	1

Decision Science Track

		Units
Statistical Data Analysis, Econometrics, and Casual Inference		
Required: at least two quarters of one of the two following sequences:		
ECON 270	Intermediate Econometrics I	2-5
ECON 271	Intermediate Econometrics II	2-5
ECON 272	Intermediate Econometrics III	2-5
Or		
MGTECON 603	Econometric Methods I	4
MGTECON 604	Econometric Methods II	3

MGTECON 605	Econometric Methods III	3
Micro-Economics		
Required, at least one quarter:		
GSBGEN 675	Microeconomic Theory	3
Or		
MGTECON 600	Microeconomic Analysis I	4
MGTECON 601	Microeconomic Analysis II	3
Or		
ECON 202N	Microeconomics I For Non-Economics PhDs	2-5
ECON 203N	Microeconomics II For Non-Economics PhDs	2-5
Or		
ECON 202	Microeconomics I	2-5
ECON 203	Microeconomics II	2-5
Discipline-Specific Courses		
Required:		
HRP 263	Advanced Decision Science Methods and Modeling in Health	3
HRP 206	Meta-research: Appraising Research Findings, Bias, and Meta-analysis	3
Choose 4 methods courses such as:		
MS&E 201	Dynamic Systems	3-4
MS&E 211	Introduction to Optimization	3-4
MS&E 223	Simulation	3
MS&E 252	Decision Analysis I: Foundations of Decision Analysis	3-4
MS&E 263	Healthcare Operations Management	3
Health Policy		
Required:		
HRP 252	Outcomes Analysis	4
HRP 256	Economics of Health and Medical Care	5
HRP 392	Analysis of Costs, Risks, and Benefits of Health Care	4
Choose 3 additional health-related courses such as:		
HRP 391	Health Law: Finance and Insurance	3
LAW 3002	Health Law: Quality and Safety of Care	3
LAW 3009	Health Law: Improving Public Health	3
Practice of Research		
Required:		
First-year core tutorial (HRP 201A, HRP 201B, HRP 201C)		
Second-year core tutorial (HRP 800)		
Research in Progress Seminar		
MED 255	The Responsible Conduct of Research	1

GPA/Grade Requirement

Failure to meet grade/GPA requirements (i.e., minimum grade of 'B-' in all courses and an overall minimum GPA of 3.0, equivalent to a grade of 'B') means the student is out of compliance with program requirements. In this case, the executive committee may ask the candidate to leave the program or may require other corrective courses of action, including, but not limited to, retaking a course. If progress remains unsatisfactory, the committee may ask the candidate to leave the program.

Ph.D. Candidacy Requirements

- Approval by adviser(s).
- Satisfactory completion of course work and program requirements in first two years.

- Submission, and approval by adviser, of the second-year paper by the second-year student.
- Passing of the Written Qualifying Exam.
- Submission of PhD Candidacy form (<https://registrar.stanford.edu/resources-and-help/student-forms/graduate-student-forms>).
- It is the responsibility of the student to initiate the required paperwork and committee meetings required by Stanford University.

Written Qualifying Exam

As part of their advancement to Ph.D. candidacy (as listed above), students must take and pass the Written Qualifying Exam. This is offered approximately two weeks after the end of Spring Quarter in the students' second year.

Oral Exam

- In accordance with the Stanford University Graduate Academic Policies and Procedures (GAP) (<https://gap.stanford.edu/handbooks/gap-handbook/chapter-4/subchapter-7/page-4-7-1>) manual, students must take and pass an Oral Examination as part of the Ph.D. degree requirements.
- The Oral Examination (colloquially known as the "proposal defense") will be focused mainly on the student's dissertation proposal. As well as examining feasibility and understanding of the dissertation proposal, it tests the candidate's command of the field of study.
- Students are required to take the Oral Exam after passing their Written Qualifying Exam, and when the adviser believes that the student is ready, however exam must be taken and passed no later than the end of Spring Quarter of the student's third year.

Further details regarding the Written and Oral Exam can be found on the Explore Degrees website (<http://exploreddegrees.stanford.edu/graduatedegrees/#doctoraltext>), Stanford GAP (<https://gap.stanford.edu>) manual, and our program website (http://med.stanford.edu/hsr/grad_programs/phd.html) and handbook (link on program website).

Ph.D. Dissertation

- Students must present a Ph.D. dissertation that is the result of independent investigation and that constitutes a contribution to knowledge in health services research and health policy.
- Students must select a primary dissertation adviser and at least two additional faculty members to serve on the dissertation committee.
- A presentation of a prospectus outlining the proposed research to the committee is required.
- Receipt of written approval from the dissertation committee chair.
- Submission of a final draft of the work signed by all members of the dissertation committee.

Further details regarding dissertation requirements can be found on the Explore Degrees website (<http://exploreddegrees.stanford.edu/graduatedegrees/#doctoraltext>), Stanford GAP (<https://gap.stanford.edu>) manual, and our program website (http://med.stanford.edu/hsr/grad_programs/phd.html) and handbook (link on program website).

Final Presentation

- Final presentation is required for graduation.
- The final presentation is a summary of the work accomplished on the PhD research and should occur while the student is still matriculated, during the regular academic quarter.

Advising

Academic advising by our faculty is a critical component of our graduate students' education.

All matriculating students will be assigned a faculty adviser from the group of core faculty to help them design their academic program. Before or shortly after the time that they advance to candidacy for the degree, students are expected to identify a group of at least three thesis advisers (also known as the dissertation reading committee), including a primary thesis adviser. The thesis advisers are selected by the student on the basis of expertise relevant to the thesis project, and may or may not include the originally assigned faculty adviser.

advisers will meet with students within the first quarter of each year to discuss students' Individual Development Plan(s) (IDPs). Additionally, students will meet with their adviser(s) on a regular basis throughout each year to discuss course selection, development of research projects, and career plans.

Academic progress and student completion of program requirements and milestones are monitored by the program staff and directors and also discussed at quarterly meetings of all PhD advisers.

Requirements and milestones, as well as more detailed descriptions of the program's expectations of advisers and students, are listed in the Student Handbook, found on the program website (http://med.stanford.edu/hsr/grad_programs/phd.html).

Additionally, the program adheres to the advising guidelines and responsibilities listed by the Office of the Vice Provost for Graduate Education (<https://vpge.stanford.edu/academic-guidance/advising-mentoring>) and in the Graduate Academic Policies and procedures (<https://gap.stanford.edu/handbooks/gap-handbook/chapter-3/subchapter-3/page-3-3-1>) manual.

See the department's website (http://med.stanford.edu/epidemiology/grad_programs/phd-ecr.html) for additional information on degree requirements, advising, program milestones, and admissions processes. Address inquiries to the HRP Education Program Manager at 650-723-5456 or hrpadmissions@stanford.edu.

Graduate Advising Expectations

The Department of Health Research and Policy is committed to providing academic advising in support of graduate student scholarly and professional development. When most effective, this advising relationship entails collaborative and sustained engagement by both the adviser and the advisee. As a best practice, advising expectations should be periodically discussed and reviewed to ensure mutual understanding. Both the adviser and the advisee are expected to maintain professionalism and integrity.

Faculty advisers guide students in key areas such as selecting courses, designing and conducting research, developing of teaching pedagogy, navigating policies and degree requirements, and exploring academic opportunities and professional pathways.

Graduate students are active contributors to the advising relationship, proactively seeking academic and professional guidance and taking responsibility for informing themselves of policies and degree requirements for their graduate program.

HRP programs adhere to the advising guidelines and responsibilities listed by the Office of the Vice Provost for Graduate Education (<https://vpge.stanford.edu/academic-guidance/advising-mentoring>) and in the Graduate Academic Policies and Procedures (<https://gap.stanford.edu/handbooks/gap-handbook/chapter-3/subchapter-3/page-3-3-1>) manual.

For a statement of University policy on graduate advising, see the "Graduate Advising (<http://exploreddegrees.stanford.edu/graduatedegrees/#advisingandcredentialstext>)" section of this bulletin.

Health Research and Policy

Chair: Laurence Baker

Professors: Laurence Baker, Mark Cullen, Steven Goodman, Victor Henderson, Mark Hlatky, John Ioannidis, Abby King, Yvonne Maldonado, Michelle Mello, Julie Parsonnet

Associate Professor: Kate Bundorf, Allison Kurian, Lorene Nelson, Michelle Odden, Kristin Sainani

Associate Professor (Clinical): Rita Popat

Assistant Professors: Lisa Goldman-Rosas, Maria Polyakova, Maya Rossin-Slater, Julia Simard

Emeriti: (Professors) Dan Bloch, John Farquhar, Victor Fuchs, Jennifer Kelsey, Alice Whittemore

Courtesy Professors: Jay Bhattacharya, Suzan Carmichael, Glenn Chertow, Manisha Desai, Mary Goldstein, Bonnie Halpern-Felsher, Paul Heidenreich, Ann Hsing, Erik Ingelsson, Daniel Kessler, Mary Leonard, Ying Lu, Stephen Luby, Alex Macario, Doug Owens, Latha Palaniappan, Thomas Robinson, Joshua Salomon, Gary Shaw, Marcia Stefanick

Courtesy Associate Professors: Themistocles Assimes, Eran Bendavid, Jeremy Goldhaber-Fiebert, Angelle (Desiree) LaBeaud, Jennifer Lee, Grant Miller, David Rehkopf, Lee Sanders, Jason Wang

Courtesy Assistant Professor: Marcella Alsan, Jason Andrews, Michael Baiocchi, Sanjay Basu, David Chan, Suzann Pershing, Eric Sun

Senior Lecturer: Irene Corso

Lecturer: Corinna Haberland

Adjunct Professor: Gary Friedman, Paul-Andre Genest, Jeroen Jansen, Eugene Lewit

Health Services Research

Director: Kate Bundorf (Associate Professor, Health Research and Policy)

Core Faculty and Academic Teaching Staff: Laurence Baker (Professor, Health Research and Policy), Kate Bundorf (Associate Professor, Health Research and Policy), Irene Corso (Sr Lecturer, Health Research and Policy), Corinna Haberland (Lecturer, Health Research and Policy), Mark Hlatky (Professor, Health Research and Policy, Medicine), Michelle Mello (Professor, Law, and Health Research and Policy), Maria Polyakova (Assistant Professor, Health Research and Policy), Maya Rossin-Slater (Assistant Professor, Health Research and Policy)

Affiliated Faculty and Staff by Department:

Anesthesiology, Perioperative, and Pain Medicine: Alex Macario (Professor), Eric Sun (Assistant Professor)

Law: Daniel Kessler (Professor)

Medicine: Marcella Alsan (Assistant Professor), Eran Bendavid (Associate Professor), Jay Bhattacharya (Professor), David Chan (Assistant Professor), Jeremy Goldhaber-Fiebert (Associate Professor), Mary Goldstein (Professor), Paul Heidenreich (Professor), Grant Miller (Associate Professor), Doug Owens (Professor), Joshua Salomon (Professor), Jason Wang (Associate Professor)

Ophthalmology: Suzann Pershing (Assistant Professor)

Epidemiology

Director: Steven Goodman (Professor, Medicine, and Health Research and Policy)

Core Faculty and Academic Teaching Staff: Mark Cullen (Professor, Medicine, Health Research and Policy, and Biomedical Data Science), Lisa Goldman-Rosas (Assistant Professor Health Research and Policy, and Medicine), Steven Goodman (Professor, Medicine, and Health Research and Policy), Victor Henderson (Professor, Health Research and Policy, Neurology and Neurological Sciences), John Ioannidis (Professor, Medicine, and Health Research and Policy), Abby King (Professor, Health Research and Policy, and Medicine), Allison Kurian (Associate Professor, Medicine, and Health Research and Policy), Yvonne Maldonado (Professor, Pediatrics, and of Health Research and Policy), Lorene Nelson (Associate Professor, Health Research and Policy), Michelle Odden (Associate Professor, Health Research and Policy), Julie Parsonnet (Professor, Medicine, and Health Research and Policy), Rita Popat (Clinical Associate Professor, Health Research and Policy), Kristin Sainani (Associate Professor, Health Research and Policy), Julia Simard (Assistant Professor, Health Research and Policy)

Affiliated Faculty and Staff by Department:

Biomedical Data Science: Ying Lu (Professor)

Medicine: Jason Andrews (Assistant Professor), Themistocles Assimes (Associate Professor), Michael Baiocchi (Assistant Professor), Sanjay Basu (Assistant Professor), Glenn Chertow (Professor), Ann Hsing (Professor), Erik Ingelsson (Professor), Jennifer Lee (Associate Professor), Mary Leonard (Professor), Stephen Luby (Professor), Latha Palaniappan (Professor), David Rehkopf (Associate Professor), Thomas Robinson (Professor), Marcia Stefanick (Professor)

Pediatrics: Suzan Carmichael (Professor), Bonnie Halpern-Felsher (Professor), Angelle (Desiree) LaBeaud (Associate Professor), Lee Sanders (Associate Professor), Gary Shaw (Professor)