

MASTER OF SCIENCE  
*GRADUATE PROGRAM IN*  
*EPIDEMIOLOGY*  
STANFORD UNIVERSITY



## 2009 EPIDEMIOLOGY GRADUATES AND CURRENT POSITIONS

|                           |   |
|---------------------------|---|
| Christine Blasey, PhD, MS | Director of Statistics, Corcept Therapeutics; Research Psychologist (Psychiatry) Stanford |
| Hillary Copp, MD, MS      | Scholar, Epidemiology and Biostatistics, University of California-San Francisco           |
| Sudeb Dalai, MS           | Medical student, Stanford; Epidemiology PhD student, University of California, Berkeley   |
| Basit Javaid, MD, MS      | Assistant Professor of Medicine (Nephrology), Stanford                                    |
| Jane MacLean, MD, MS      | Resident, Pediatrics  |
| Sonia Partap, MD, MS      | Instructor, Neurology, Stanford   |
| Joanna Schaenman, MD, MS  | Clinical Instructor, Medicine (Infectious Diseases), Stanford                             |

## 2008 EPIDEMIOLOGY GRADUATES AND CURRENT POSITIONS

|                               |   |
|-------------------------------|---|
| Gaurav Arora, MD, MS          | Fellow, Gastroenterology, University of Texas at Houston                                  |
| Jose Bazan, MD, MS            | Resident, Medicine (Radiation Oncology), Stanford   |
| Alicia Gutierrez, MS          | Research assistant (2008)   |
| Ying Hao, MD, MS              | Senior Scientist, NextBio   |
| Joyce Hsu, MD, MS             | Clinical Assistant Professor, Pediatrics (Rheumatology), Stanford                         |
| Maarten Lansberg, MD, PhD, MS | Assistant Professor, Neurology & Neurological Sciences, Stanford                          |
| Jennifer Lee, MD, PhD         | Assistant Professor, Medicine (Endocrinology), University of California at Davis          |
| Kari-Jean McKenzie, MS        | Medical student, University of British Columbia   |
| Maureen, O'Brien, MD, MS      | Assistant Professor of Clinical Pediatrics, Cincinnati Children's Hospital Medical Center |
| Chirag Patil, MD, MS          | Senior resident, Neurosurgery, Stanford   |
| Mohammad Subeh, MS            | Medical student, Oregon Health and Science University                                     |

## 2007 EPIDEMIOLOGY GRADUATES AND CURRENT POSITIONS

|                                 |   |
|---------------------------------|---|
| Sally Arai, MD, MS              | Assistant Professor, Medicine (Blood & Marrow Transplantation), Stanford                                      |
| Megan Bowles, MD, MS            | Practice of family medicine   |
| Ian Carroll, MD, MS             | Clinical Instructor, Anesthesiology (Pain Management), Stanford   |
| Lawrence Chu, MD, MS            | Clinical Assistant Professor, Anesthesiology, Stanford  |
| Chrysoula Dosiou, MD, MS        | Clinical Assistant Professor, Medicine (Endocrinology, Gerontology & Metabolism), Stanford                    |
| Gregory Engel, MD, MS           | Practice of cardiology  |
| Susan Hintz, MD, MS             | Associate Professor, Pediatrics (Neonatology), Stanford   |
| Andrew Jaciw, MS                | Doctoral student, School of Education, Stanford   |
| Seble Kassaye, MD, MS           | Instructor, Infectious Diseases, Stanford   |
| Ahmad Kamal, MD, MS             | Practice of gastroenterology and internal medicine, Santa Clara Valley Medical Center                         |
| Sue Kim, MD, MS                 | Practice of internal medicine, Kaiser Permanente, Santa Clara   |
| Allison Kurian, MD, MS          | Assistant Professor, Medicine (Oncology); Health Research & Policy (Epidemiology), Stanford                   |
| Cynthia Leung, MD, MS           | Practice of gastroenterology, Peninsula Gastroenterology Medical Group  |
| Henry Lee, MD, MS               | Associate Physician, Pediatrics (Neonatology), University of California at San Francisco                      |
| Rebecca Newton Thompson, MD, MS | Chief Resident, Family Medicine, Oregon Health and Science University   |
| Robin Varghese, MD, MS          | Fellow, Critical Care, University of Western Ontario  |
| Christine Won, MD, MS           | Clinical Assistant Professor, Medicine (Pulmonary & Critical Care), University of California at San Francisco |

Information in this document is intended as a guide for students  
and is subject to change without notice.

Please refer to the Stanford *Bulletin* and *Time Schedule* for updated course information.

*For further information please contact*

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# EPIDEMIOLOGY AT STANFORD: AN INTRODUCTION

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Epidemiology, the study of the distribution and determinants of illness and impairment in human populations, is a discipline whose importance is increasingly recognized at national and international levels. The overarching mission of the Stanford University School of Medicine is the translation of discoveries into medical practice and clinical care. The Graduate Program in Epidemiology strongly supports this mission through the training of physician investigators in techniques of clinical research within the Master program. The Program also considers students from other disciplines who would benefit from formal training in epidemiologic research methods.

Epidemiology provides the evidence base for the efficacy of community and patient interventions and for clinical practice. A myriad of health-related questions of societal importance are addressed through epidemiologic research: identifying causes of human cancers, disentangling environmental and genetic causes of neurodegenerative disorders, determining risks and benefits of common treatments, implementing and evaluating programs to reduce cardiovascular disease, and many others. Epidemiologic principles help identify healthy individuals at increased risk for specific disorders and patients likely to benefit from specific therapies. Epidemiology is important as a discipline in its own right, and epidemiologic methods are used by clinical investigators, behavioral scientists, and social scientists who conduct observational and experimental research on the identification, prevention, and treatment of human disorders.

In 1978, Dr. Ralph Paffenbarger, world renowned for seminal work on effects of physical activity on health and longevity, was recruited to develop epidemiology as an academic discipline at Stanford, originally within the Department of Community and Preventive Medicine, renamed in 1987 as the Department of Health Research and Policy.



**Faculty and students in the Epidemiology Research Seminar**

A Graduate Program was authorized in 1993, with the first students enrolling the following year.

Now directed by Dr. Victor Henderson, the Graduate Program in Epidemiology offers instruction and interdisciplinary research opportunities leading to the M.S. degree in Epidemiology. Most core faculty and academic teaching staff are administratively housed within the Department of Health Research and Policy. Affiliated faculty come from other Stanford University departments and centers, and from Bay Area research facilities that include the Northern California Cancer Center and the Kaiser Permanente Division of Research. The Program seeks students with the potential to be future leaders in clinical and translational research, epidemiology, and allied disciplines. Core faculty have particular research strengths in cancer epidemiology, infectious disease epidemiology, neuroepidemiology, cardiovascular disease epidemiology, and aspects of epidemiologic methods, genetic epidemiology, musculoskeletal disease epidemiology, women's health, and environmental and occupational epidemiology.

## **Recent graduates from the Program in Epidemiology**

Most recent graduates have remained in academic settings. Their current positions, where known, are given on page one on the inside cover.

## PROGRAM OVERVIEW

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In laying out the Roadmap for Medical Research in the 21st Century, the National Institutes of Health highlighted the need for enhanced training of clinical and translational researchers. The Stanford University School of Medicine has placed strategic emphasis on translational research, and Dean Philip Pizzo has reiterated that graduate training in epidemiology is essential to the future of the School. Its vision is that of a premier research-intensive medical school, and the overarching mission is the translation of discoveries into medical practice.

The Program in Epidemiology is an integral component of *Spectrum*, the Stanford Center for Clinical and Translational Education and Research, intended to transform and integrate clinical and translational research across academic and clinical units. Spectrum is supported through a Clinical and Translational Science Award from the National Institutes of Health. The M.S. Program in Epidemiology is designed to help meet institutional and national training priorities related to clinical research.

The program is oriented primarily for physicians and other students with interests in clinical epidemiology who anticipate careers in translational and clinical research. Clinical epidemiology, more so than traditional epidemiology, is concerned with groups of patients rather than with communities or other natural populations. In addition to disease causation and prevention, the clinical epidemiologist is interested in treatment outcomes, including those obtained during interventional studies.



Students in Chronic Disease Epidemiology

Students in the M.S. Program receive training in epidemiologic methods, statistical analysis, and other areas essential to patient-oriented clinical research.

Many students are clinical investigators with an M.D. or comparable clinical degree, often in fellowship stages of their training or already junior faculty members.

The Program also considers select applicants from doctoral programs in the social, behavioral, or biological sciences interested in a concurrent master degree and who wish to apply epidemiologic techniques to their areas of research interest. The Program is appropriate for some students with backgrounds in law, public policy, or other disciplines. The Program also serves as a rigorous introduction to epidemiology for students with baccalaureate degrees who anticipate careers in clinical epidemiology or medicine. Previous course work in biology and statistics or mathematics is strongly recommended.

To receive the degree, all students are expected to obtain a thorough grounding in epidemiologic methods and applied biostatistics, and to demonstrate research skills through completion of a master thesis.



Recent Epidemiology graduates Sonia Partap, Joanna Schaeenman, Nikki Stoddart and Christine Blasey



## ADMISSION CRITERIA

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Successful applicants for admission are expected to have a strong academic record, high Graduate Record Examination (GRE) scores obtained within the past five years, strong letters of recommendation, and an appropriate personal statement of purpose. The GRE requirement may be waived for physicians and medical students, if scores from the Medical College Admission Test (MCAT) are provided instead with prior approval from the Graduate Admissions Office. Preference will be accorded applicants who have already identified a potential research mentor or with research interests aligned with those of faculty available to serve as research mentors.

Applicants from other countries whose first language is not English and who have not received a degree from a university where the primary language of instruction is English, will be required to submit Test of English as a Foreign Language (TOEFL) scores as evidence of English proficiency. Scores of at least 100 for the internet based test (iBT) or 250-300 for the computer based (cBT) TOEFL exam are required.

*Application Information and Registration Policies and Procedures.* Application information is available at the following address: Graduate Admissions Office, 630 Serra St., Suite 120,

Stanford University, Stanford, CA 94305-6032; (650) 723-4291 or via the internet at <http://gradadmissions.stanford.edu/>.

General information for Stanford University is available at (650) 723-2300 or at <http://www.stanford.edu>.

The Stanford *Bulletin* may be accessed via the internet at

<http://www.stanford.edu/dept/registrar/bulletin/>.

The *Bulletin* may also be purchased from the Stanford Bookstore. To receive the *Bulletin* via UPS (U.S. only), send a check or money order that includes \$8.00 for the *Bulletin* plus \$5.95 for shipping and sales tax for your respective state. For California residents, the total is \$14.61. Send requests to Stanford Bookstore, 519 Lausen Plaza, Stanford, California 94305-3079. A check or money order should be in U.S. funds and made payable to Stanford Bookstore. Prices are subject to change.

The *School of Medicine Course Catalog* may be accessed via the internet at

<http://medcatalog.stanford.edu/>. Other information on the School of Medicine is available at the following address: Office of Student Affairs, School of Medicine, Stanford University, Stanford, CA 94305.



## FUNDING OF GRADUATE STUDY

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Finances are a major concern for many graduate students, and in general little non-loan support is available from Stanford University for master students. Physician fellows anticipating careers in clinical translational research may be eligible for KL2 funding through the Spectrum Clinical and Translational Science Award. Availability of KL2 funding is limited, but selected scholars receive full tuition support and a small research allowance; stipend support may be available in select instances. Medical students may apply for tuition support through Spectrum TL1 funding. Information on KL2 and TL1 awards are available from the Health Research and Policy educational coordinator at (650) 723-5456 or [epiprogram@med.stanford.edu](mailto:epiprogram@med.stanford.edu)

Information on loan funds is available from the University Financial Aid Office, where staff can develop an estimate of living expenses to help determine loan eligibility and provide a guide for financial planning. Related information is available at <http://gradadmissions.stanford.edu/financing>, and at the Graduate Admissions web site <http://gradadmissions.stanford.edu/>.

Students (current and prospective) are strongly encouraged to seek funding through their clinical training programs and to apply for career development awards and similar external funding from the NIH and professional organizations that pay for tuition and provide an additional stipend.

## MENTORING, ADVISING, AND EVALUATION

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M.S. students in the Graduate Program in Epidemiology have two mentors. Upon entering the program, each student is assigned a methodology mentor, usually a core faculty member serving on the Steering Committee. In addition, the student will be asked to identify a research mentor. For physicians, this mentor is usually from the discipline of the student's clinical affiliation. For all students, research mentors are typically members of the Stanford University professoriate, but they need not be currently designated as core or affiliated faculty in the Graduate Program in Epidemiology. For example, physicians who maintain an affiliation with another university can often arrange to include a research mentor from the other university if the student's research takes place, in part, at that university. If the research mentor is from the

Department of Health Research and Policy, then the same faculty member may serve as both methodology and research mentor, with permission of the program director.

The methodology mentor serves as the student's Academic Advisor and is responsible for advising in the selection of courses, approving a thesis research topic, monitoring the student's progress through the program, and helping with other program-related issues that may arise. If a student's thesis research requires additional expertise that is not covered by those of the methodology or research mentors (e.g., outcomes research or advanced statistical methods), a third mentor may be appointed with approval of the methodology mentor.

## COURSE REQUIREMENTS

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Requirements for the M.S. degree include general requirements described in the *Stanford Bulletin*. A total of 45 units are required, including 28 course units exclusive of HRP 236 (Epidemiology Research Seminar), HRP 299 (Directed Reading), and HRP 399 (Research). At least three units of HRP 236 are required. Transfer credit is not accepted for the M.S. degree, per Stanford policy.

The M.S. program is typically completed in one or two years (four to six quarters). The maximum

length of study for the M.S. degree is three years, which potentially may be extended by one year through petition.

To maintain minimum progress toward the degree, students who have not been granted Terminal Graduate Registrant status are required to enroll in at least 8 units each quarter, except Summer quarter. They must maintain an overall 3.0 (B) grade average in graded courses.

## MASTER THESIS

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The completion of a master thesis is an essential component of the M.S. program in Epidemiology. The thesis allows students a chance to integrate epidemiologic principles learned in courses and to demonstrate the following:

- Familiarity with epidemiologic terms, reasoning, and issues.
- Ability to communicate scientific reasoning and argue analytically.
- Awareness of technical, methodological, and other issues relevant to traditional and clinical epidemiologic research.
- Comprehension of statistical techniques, their proper use, and limitations.
- Knowledge in a substantive area.

The thesis is ordinarily 30 to 60 pages in length, double-spaced, including tables, figures, and references. Each thesis must include a summary abstract of approximately 400 to 1000 words. The thesis can take one of the four following forms:

- Original analysis of data, whether collected primarily for the thesis or as secondary data analysis. This thesis form is most commonly selected by students.
- A comprehensive literature review with a meta-analysis of data or a critical reanalysis of data.
- Evaluation of a methodologic problem using real or hypothetical data.
- A comprehensive literature review with a grant proposal (NIH-style format) for a new study to bridge a gap in the existing knowledge. The proposal should highlight methodologic principals.

The quality of the master thesis should be such that it can be converted into a manuscript for publication or a credible research grant application, and students are strongly encouraged to do so. Students are required to present their research findings during a session of HRP 236, Epidemiology Research Seminar.

*Thesis Committee:* Each student's Master Thesis Committee is composed of at least two faculty members, an epidemiology core reader and a co-reader. The epidemiology core reader, who is typically the student's methodology mentor, serves as the principal thesis advisor. The co-reader is typically the research mentor. The epidemiology core reader is ordinarily a member of the Stanford Academic Council and should be listed as the instructor for at least 9 of the required 12 master thesis (research) units (HRP 399). Registration for master thesis units must be approved by the core reader. If the student's thesis research requires expertise beyond that covered by the methodology or research mentor, a third faculty mentor may be appointed as a thesis reader. This appointment must be requested by the student and approved by the core reader. Primary supervision of the student during the course of the research and writing of the thesis is shared by the core reader and the co-reader.

Completion of the master thesis involves registration for at least 12 units of master thesis research over a period of two or more quarters. During the first quarter, a proposal for the thesis must be submitted to thesis readers when the project is early in its

conceptual stages. The purpose is for the student to obtain guidance from the Thesis Committee about specific aims, study design features, and analytic methods before commencing on the project. The Master Thesis Committee will notify the student of its decision within two weeks of receipt of the proposal. Rejected proposals can be resubmitted before the end of the quarter.

Registration for the second quarter of master thesis units can take place only after successful completion of the first quarter thesis requirements. In the quarter the student expects to graduate, the master thesis should be completed and submitted to the readers, allowing sufficient time for readers' comments and for revisions that might be required. A student should ordinarily expect readers' comments within two weeks of submission. The final version should be submitted at least two weeks before the end of the quarter. A suggested format for the thesis is available from the department Educational Coordinator. An electronic copy of the approved thesis, with three original signature sheets should be sent to the Educational Coordinator and to the Binding and Finishing department at least 72 hours before the deadline.

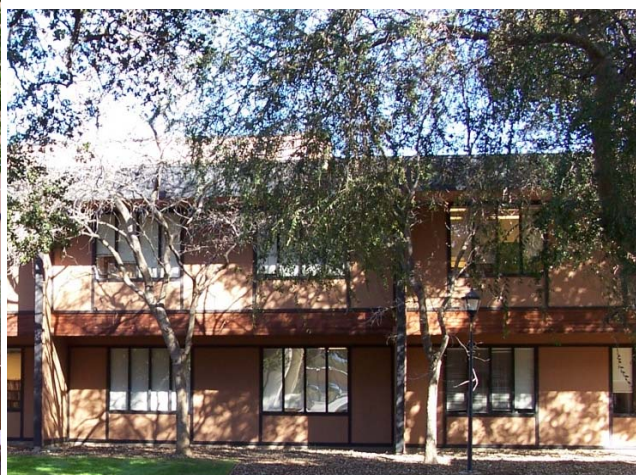




## CORE REQUIREMENTS FOR THE MASTER DEGREE IN EPIDEMIOLOGY

| <b>Epidemiologic methods sequence</b> |   |   |
|---------------------------------------|---|---|
| HRP 225                               | Design and Conduct of Clinical and Epidemiologic Studies                                  | Intermediate-level. The skills to design, carry out, and interpret epidemiologic studies, particularly of chronic diseases. Topics: epidemiologic concepts, sources of data, cohort studies, case-control studies, cross-sectional studies, sampling, estimating sample size, questionnaire design, and the effects of measurement error. Prerequisite: A course in statistics or consent of instructor. (Popat) 3-4 units, Autumn. |
| HRP 226                               | Advanced Epidemiologic and Clinical Methods   | The principles of measurement, measures of effect, confounding, effect modification, and strategies for minimizing bias in clinical and epidemiologic studies. Prerequisite: HRP 225 or consent of instructor. (Nelson) 3-4 units, Winter.  |
| HRP 251                               | Design and Conduct of Clinical Trials   | This course covers the rationale for Phase 1-3 clinical trials, the recruitment of subjects, techniques for randomization, data collection and endpoints, interim monitoring and reporting of results. Emphasis is placed on both the theoretical underpinnings of clinical research and practical aspects of conducting clinical trials. (Henderson, Lavori) 3 units, Spring.  |
| <b>Biostatistics sequence†</b>        |   |   |
| HRP 259                               | Introduction to Probability and Statistics for Epidemiology                               | Topics: random variables, expectation, variance, probability distributions, the central limit theorem, sampling theory, hypothesis testing, confidence intervals. Correlation, regression, analysis of variance, and nonparametric tests. Introduction to least squares and maximum likelihood estimation. Emphasis is on medical applications. (Sainani) 4-5 units, Autumn.  |
| HRP 261                               | Intermediate Biostatistics: Analysis of Discrete Data (same as STATS 261, BIOMEDIN 233)   | Methods for analyzing data from case-control and cross-sectional studies: the 2x2 table, chi-square test, Fisher's exact test, odds ratios, Mantel-Haenzel methods, stratification, tests for matched data, logistic regression, conditional logistic regression. Emphasis is on data analysis in SAS. Special topics: cross-fold validation and bootstrap inference. (Sainani) 3 units, Winter.                                    |
| HRP 262                               | Intermediate Biostatistics: Regression, Prediction, Survival Analysis (same as STATS 262) | Methods for analyzing longitudinal data. Topics include: Kaplan-Meier methods, Cox regression, hazard ratios, time-dependent variables, longitudinal data structures, profile plots, missing data, modeling change, MANOVA, repeated-measures ANOVA, GEE, and mixed models. Emphasis is on practical applications. Prerequisites: basic ANOVA and linear regression. (Sainani) 3 units, Spring.                                     |

| Research seminars, three quarters  |  |   |
|--|--|---|
| HRP 236  | Epidemiology Research Seminar  | A weekly forum for ongoing epidemiologic research by faculty, staff, guests, and students, emphasizing research issues relevant to disease causation, prevention, and treatment. May be repeated for credit. (Henderson, Sieh, Whittemore) 1 unit, Autumn, Winter, Spring.  |
| Research conduct†  |  |   |
| MED 255‡   | Responsible Conduct of Research  | Research Forum. How to identify and approach ethical dilemmas that commonly arise in biomedical research. Issues in the practice of research such as in publication and interpretation of data, and issues raised by academic/industry ties. Contemporary debates at the interface of biomedical science and society regarding research on stem cells, bioweapons, genetic testing, human subjects, and vertebrate animals. Completion fulfills NIH/ADAMHA requirement for instruction in the ethical conduct of research. Recommended: research experience. (Karkazis) 1 unit, Autumn, Winter, Spring. |
| Attendance at research review meeting  | Students are required to attend one meeting of the Human Subjects Panel (Institutional Review Board). All students must attend the requisite orientation in October before attending a Human Subjects Panel. Students should provide documentation of attendance to the Educational Coordinator and their academic advisors. |   |
| Master thesis  |  |   |
| HRP 399  | Research   | Qualified students undertake investigations sponsored or supervised by individual faculty members. A total of at least 12 units of thesis research must be taken over at least two quarters. (staff)  |
| †Students who have comparable coursework from other institutions may select higher-level statistics courses in place of the basic series upon the approval of the course instructor and the student’s academic advisor.  |  |   |
| ‡The requirement for MED 255 is waived for a student who currently serves as the principal investigator for a clinical research protocol approved by the Stanford institutional review board. Documentation should be provided to the program Educational Coordinator and to the student’s academic advisor. |  |   |



Required courses in epidemiologic methods (HRP 225, 226) and biostatistics (HRP 259, 261, 262) must be graded. Other courses may be taken on a credit/no-credit basis, if so offered.

Electives, which may be used to fulfill the 45-unit requirement, are given below. Among these, students are required to take at least three courses designated as “selectives.” HRP 223 (Data Management and Statistical Programming) is strongly recommended. Please note that some courses are not offered every year. Courses other than those listed above may be taken as electives, but these require permission of the student’s academic advisor. Upon petition for cause, and with approval of a student’s advisor and the program director, another course can substitute for one of the three required selectives.

### **A SAMPLE PROGRAM FOR THE M.S. DEGREE**

| Course number  | Course Title  | Units    |
|--|---|----------|
| <u>First Quarter: Autumn</u>   |   |          |
| HRP 225  | Design and Conduct of Clinical and Epidemiologic Studies              | 4        |
| HRP 259  | Introduction to Probability and Statistics for Epidemiology           | 5        |
| HRP 236  | Epidemiology Research Seminar   | 1        |
| HRP 223  | Data Management and Statistical Programming                           | 3        |
| —  | Elective/selective course(s) or HRP 299, directed reading             | Variable |
| <u>Second Quarter: Winter</u>  |   |          |
| HRP 226  | Advanced Epidemiologic and Clinical Methods                           | 4        |
| HRP 261  | Intermediate Biostatistics: Analysis of Discrete Data                 | 3        |
| MED 255  | Responsible Conduct of Research                                       | 1        |
| HRP 236  | Epidemiology Research Seminar   | 1        |
| —  | Elective/selective course(s) or HRP 299, directed reading             | Variable |
| <u>Third Quarter: Spring</u>   |   |          |
| HRP 251  | Design and Conduct of Clinical Trials                                 | 3        |
| HRP 262  | Intermediate Biostatistics: Regression, Prediction, Survival Analysis | 3        |
| HRP 236  | Epidemiology Research Seminar   | 1        |
| HRP 399*   | Research (master thesis)  | Variable |
| —  | Elective/selective course(s) or HRP 299, directed reading             | Variable |
| <u>Subsequent Quarters</u>   |   |          |
| HRP 399*   | Research (master thesis)  | Variable |
| —  | Elective/selective course(s) or HRP 299, directed reading             | Variable |
| Core courses in epidemiologic methods and biostatistics are ordinarily taken during the first year of study. |   |          |
| *A total of 12 units of HRP 399 Research (master thesis) must be taken over at least two quarters.           |   |          |

## ELECTIVES AND SELECTIVES

|                |   |   |
|----------------|---|---|
| HRP 206<br>(E) | Topics in Quantitative Methods: Meta-Analysis (Same as STATS 211)                     | Meta-analysis is a quantitative method for combining results of independent studies, and enables researchers to synthesize the results of related studies. Examples from the medical, behavioral, and social sciences. Topics: literature search, publication and selection bias, statistical methods. Project. (Olkin) 3 units, Winter.  |
| HRP 209<br>(E) | FDA's Regulation of Health Care (Same as Law 458)                                     | Open to law or medical students; 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. (Greely) 3 semester units, <i>not offered 2009-2010</i> .  |
| HRP 210<br>(E) | Health Law and Policy (same as LAW 313)   | Open to law or medical students; other graduate students by consent of instructor. Focus this term is on the American health care financing system and its reform, how the present system works, diagnosing where it does not work, and exploring how it might be improved. (Greely) 3 units, Autumn.   |
| HRP 212<br>(E) | Crosscultural Medicine  | Interviewing and behavioral skills to facilitate culturally relevant health care across all population groups. Explicit and implicit cultural influences operating in formal and informal medical contexts. (Corso) 3 units, Spring.  |
| HRP 214<br>(E) | Scientific Writing  | Step-by-step process of writing and publishing a scientific manuscript. How to write effectively, concisely, and clearly. Preparation of an actual scientific manuscript. Students are encouraged to bring a manuscript on which they are currently working to develop and polish throughout the course. (Sainani) 2-3 units, Winter.   |
| HRP 216<br>(S) | Analytical and Practical Issues in the Conduct of Clinical and Epidemiologic Research | Topics include: advanced aspects of study design and data analyses; development of health measurement instruments; methods of summarizing literature and quantifying effect sizes; and understanding the multivariable nature of health events in human populations. 3 units requires a term paper in addition to regular assignments. Prerequisites: HRP 225, and HRP 258 or 259, or consent of instructor. (Popat) 2-3 units, Winter.   |
| HRP 220<br>(E) | Biotechnology Law and Policy (Same as Law 440)  | Open to all law or medical students; other graduate students by consent of the instructor. Focuses on the biotechnology industry, with some discussion of the "med tech" or medical device industry and the pharmaceutical industry. The life cycle of a biotech firm, from a good idea to a start-up company to FDA approval and beyond. Guest speakers. In addition to a final exam, students are required to participate in a group project during the term, making law and business recommendations about a biotech firm. (Greely) 3 units, Spring. |
| HRP 221<br>(S) | Law and the Biosciences: Genetics (Same as Law 480)                                   | Open to all law or medical students; other graduate students by consent of the instructor. Ethical, legal, and social issues arising primarily from advances in knowledge of human genetics. May also include a section on stem cell research. (Greely) 3 units, Spring.  |
| HRP 223<br>(S) | Epidemiologic Analysis: Data Management and Statistical Programming                   | Skills for management and analysis of biomedical data. Topics include importing and exporting data from multiple database systems, visualizing and cleaning data, data management for multicenter projects, and data security. Introduction to applied statistical programming relevant to epidemiologic and clinical research. No previous programming experience required. (Balise) 2-3 units, Autumn.  |
| HRP 228<br>(S) | Genetic Epidemiology  | Reading of seminal papers in genetic epidemiology. Topics include human genetic variation, genetics of complex diseases, genome-wide association studies, and new genomic technologies. Provides a background for clinicians, epidemiologists, and other scientists to incorporate the study of genetic factors into human disease research. Prerequisite: HRP 225 or consent of instructor. (Sieh) 2 units, Spring.  |



|                     |  |  |
|---------------------|--|--|
| HRP 229<br>(S)      | Chronic Disease Epidemiology   | Descriptive epidemiology and sources of incidence and mortality data; the biological basis of neurological, musculoskeletal, cardiovascular, and other chronic diseases except cancer; methodological issues relevant to chronic epidemiologic research; causal inference; major environmental risk factors; genetic susceptibility; examples of current research; and critiques of literature. (Popat) 2-3 units, offered every other year, not offered 2009-2010.  |
| HRP 230<br>(S)      | Cancer Epidemiology  | Descriptive epidemiology and sources of incidence/mortality data; biological basis of carcinogenesis and implications for epidemiologic research; methodological issues relevant to cancer research; causal inference; major environmental risk factors; genetic susceptibility; cancer control; examples of current research; critique of literature. Prerequisite: HRP 225, or instructor consent. (West, Kurian) 2-3 units, Winter, offered every other year.   |
| HRP 231<br>(S)      | Epidemiology of Infectious Diseases  | Principles of transmission of infectious agents, including viruses, bacteria, rickettsiae, mycoplasma, fungi, protozoan and helminth parasites. The role of vectors, reservoirs, and environmental factors. Pathogen and host characteristics determining spectra of infection and disease. Endemicity, outbreaks, and epidemics of selected infectious diseases. Surveillance and control. (Maldonado, Parsonnet) 3 units, offered every other year, not offered 2009-2010.   |
| HRP 234<br>(S)      | Foundations of Pharmacoepidemiology  | Historical development of the field, the drug development process and pharmacoepidemiology's role in it, pharmacovigilance/drug safety systems, epidemiology in outcomes research, the role of pharmacoepidemiology in risk management, and classic examples of pharmacoepidemiologic investigations. (Lilienfeld, D.) 3 units, Spring.  |
| HRP 238<br>(S)      | Genes and Environment in Disease Causation: Implications for Medicine and Public Health (same as HUMBIO 159) | Design, analysis, and interpretation of studies of genetic risk factors for common diseases in human populations. Topics: heritability, detecting disease genes using family and population-based study designs, gene-environment interactions, pharmacogenetics, and genomics. (Popat), 2-3 units, Winter.  |
| HRP 239<br>(E)      | Understanding Statistical Models and their Social Science Applications (same as EDUC 260x, STATS 209)        | Information that statistical modeling can provide in experimental and non-experimental settings emphasizing misconceptions in social science applications such as causal modeling. Prerequisite: intermediate-level statistical methods including multiple regression, logistic regression, and log-linear models. (Rogosa) 3 units, Winter.   |
| HRP 240<br>(E)      | Rethinking International Health (Same as MED 230)  | Issues and players that shape international health today. How to develop a road map for thoughtful, responsible action. Topics include role of the physician and health care worker, health as a human right, successful interventions, children's and women's health, issues in immunization, economic development, and NGOs. Online interviews with influential leaders in international health. ((Goldhaber-Fiebert) 2-3 units, Spring.   |
| HRP 252<br>(E)      | Outcomes Analysis (same as BIOMEDIN 251)   | 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. (Bhattacharya) 3 units, Spring. |
| HRP 260a,b,c<br>(E) | Workshop in Biostatistics (same as STATS 260a,b,c)   | Applications of statistical techniques to current problems in medical science. (Olshen and Staff) 1-2 units, Autumn, Winter, Spring.   |
| HRP 283<br>(E)      | Health Services Research Seminar   | Presentation of research in progress and tutorials in the field of health services research. (Haberland) 1 unit, Autumn, Winter, Spring.   |

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| HRP 299<br>(E)               | Directed Reading  | Aspects of preventive medicine, public health, social aspects of disease and health, economics of medical care, occupational or environmental medicine, epidemiology, international health or related fields. Prerequisite: consent of instructor. (Staff) 1-18 units, Autumn, Winter, Spring, Summer  |
| HRP 351<br>(E)               | Innovation and Management in Health Care (same as GSBGEN 351)                             | How health care businesses use biotechnology, medical technology and information technology to improve patient outcomes and manage costs. New technologies commercialized by innovator biotech and pharmaceutical companies, device manufacturers, diagnostics developers, and health IT companies, and adopted by hospitals and physicians in patient care and paid for by third-party payers. Case studies: how innovators finance and manage new product development; clinical trial management and gaining regulatory approval; strategies to drive product adoption; business models to drive innovation; clinical and business models for adopting new technology; organizational change; criteria for reimbursement and coverage decisions; selective provider network design to manage added costs; and IT-intensive business models. Guest speakers and panelists. (Chess, Zenios) 4 units, <i>not offered 2009-2010</i> .  |
| HRP 391<br>(E)               | Political Economy of Health Care in the United States (same as PUBLPOL 231)               | Economic tools and institutional and legal background to understand how markets for health care products and services work. Moral hazard and adverse selection. Institutional organization of the health care sector. Hospital and physician services markets, integrated delivery systems, managed care, and pharmaceutical and medical device industries. Public policy issues in health care, medical ethics, regulation of managed care, patient bill of rights, regulation of pharmaceuticals, Medicare reform, universal health insurance, and uninsured coverage. International perspectives. Provides the legal, institutional, and economic background necessary to understand the financing and production of health services in the U.S. Potential topics include: health reform, health insurance (Medicare and Medicaid, employer-sponsored insurance, the uninsured), medical malpractice and quality regulation, pharmaceuticals, the corporate practice of medicine, regulation of fraud and abuse, and international comparisons. (Kessler,) 3 units, Spring. |
| HRP 392<br>(E)               | Analysis of Costs, Risks, and Benefits of Health Care (same as BIOMEDIN 432, MGTECON 332) | How to do cost/benefit analysis when the output is difficult or impossible to measure. How do M.B.A. analytic tools apply in health services? 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. (Garber, Owens) 4 units, Autumn.   |
| HUMBIO 126<br>(E)            | Promoting Health Over the Life Course: Multidisciplinary Perspectives                     | Disease prevention and health promotion topics pertinent to different stages of the life span emphasizing healthy lifestyle and reducing risk factors in both individuals and communities. Focus is on scientific investigation, the application of behavioral science to risk reduction strategies, and the importance of health promotion as a social and economic imperative. Topics include: epidemiology of chronic diseases; social determinants of health, behavior change; obesity, nutrition, and stress; young adult, mid-life and aging health issues; health care delivery and public health system; workplace wellness programs; and environmental and international issues. (Alles, Stefanick) 3 units, Autumn.  |
| MED 262<br>(E)               | Economics of Health Improvement in Developing Countries (Same as ECON 127)                | Application of economic paradigms and empirical methods to health improvement in developing countries. Emphasis is on unifying analytic frameworks and evaluation of empirical evidence. How economic views differ from public health, medicine, and epidemiology; analytic paradigms for health and population change; the demand for health; the supply of health; the role of health in international development. Prerequisites: background in economics and statistics, and consent of instructor. (Miller), 5 units, Winter.   |
| E = elective; S = selective. |   |  |

## FACULTY AND ACADEMIC TEACHING STAFF

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Teaching and mentoring in the Program in Epidemiology involve core faculty epidemiologists, who serve as methodology mentors and academic advisors for the program, and affiliated faculty. Other affiliated faculty teach within the program in Epidemiology, serve as research mentors, or offer biostatistical consultation. Operational guidance is provided by a Steering Committee composed of core faculty and chaired by the program director. A multidisciplinary Advisory Committee provides oversight and helps formulate strategic policy.

### STEERING COMMITTEE / CORE FACULTY SERVING AS ACADEMIC ADVISORS

Members of the Steering Committee are core Epidemiology faculty who serve as Methodology Mentors and Academic Advisors.

**Gary D. Friedman, MD, MS.** Consulting Professor, Department of Health Research and Policy (Epidemiology). Former director, Division of Research, Kaiser Permanente. Chair, Admissions Committee, Graduate Program in Epidemiology.

Cancer epidemiology; epidemiology of chronic diseases.

**Victor W. Henderson, MD, MS.** Professor, Departments of Health Research and Policy (Epidemiology) and of Neurology and Neurological Sciences. Director, Graduate Program in Epidemiology.

Neuroepidemiology; aging, cognition, and dementia.

**Abby C. King, PhD.** Professor, Departments of Health Research and Policy (Epidemiology) and of Medicine (Stanford Prevention Research Center).

Disease prevention; epidemiology of cardiovascular diseases.

**Allison Kurian, MD, MS.** Assistant Professor, Departments of Medicine (Oncology) and of Health Research and Policy (Epidemiology).

Cancer genetics and cancer epidemiology; breast and ovarian cancer.

**Yvonne Maldonado, MD.** Professor, Departments of Pediatrics and (by courtesy) of Health Research and Policy (Epidemiology).

Infectious disease epidemiology.

**Lorene M. Nelson, PhD, MS.** Associate Professor, Department of Health Research and Policy (Epidemiology). Chief, Division of Epidemiology.

Neuroepidemiology; genetic epidemiology; epidemiologic methods.

**Julie Parsonnet, MD.** Professor, Departments of Medicine (Infectious Diseases) and of Health Research and Policy (Epidemiology).

Infectious disease epidemiology; cancer epidemiology.

**Weiva Sieh, MD, PhD.** Assistant Professor, Department of Health Research and Policy (Epidemiology).

Genetic epidemiology; cancer epidemiology.

**Dee W. West, PhD.** Professor, Department of Health Research and Policy (Epidemiology). Member, Northern California Cancer Center. Program Director for the Population Sciences and Education Program, Stanford University Cancer Center.

Cancer epidemiology.

**Alice S. Whittemore, PhD.** Professor, Department of Health Research and Policy (Epidemiology).

Cancer epidemiology; statistical methods in epidemiology; genetic epidemiology.

## OTHER CORE FACULTY AND ACADEMIC STAFF

**Raymond R. Balise, PhD.** Lecturer, Department of Health Research and Policy (Epidemiology), and Statistical Analyst.  
Statistical analysis and programming methods; cancer epidemiology.

**Rita A. Papat, PhD.** Clinical Assistant Professor, Department of Health Research and Policy (Epidemiology).  
Neuroepidemiology; epidemiology of musculoskeletal diseases.

**Kristin L. Sainani, PhD.** Clinical Assistant Professor, Department of Health Research and Policy (Epidemiology).  
Epidemiology of musculoskeletal diseases; women's health.

## AFFILIATED FACULTY AND ACADEMIC STAFF

### WITH APPOINTMENT IN DEPARTMENT OF HEALTH RESEARCH AND POLICY

**Laurence Baker, PhD.** Professor, Department of Health Research and Policy (Health Services Research).  
Health economics.

**Jayanta Bhattacharya, MD, PhD.** Associate Professor, Department of Medicine (Primary Care and Outcomes Research) and (by courtesy) of Health Research and Policy and of Economics.  
Economic and policy effects on vulnerable populations.

**Daniel A. Bloch, PhD.** Professor (research), Emeritus, Department Health Research and Policy (Biostatistics).  
Biostatistics; longitudinal analyses; multivariable outcomes and classification methods.

**M. Kate Bundorf, PhD.** Assistant Professor, Department of Health Research and Policy (Health Services Research).  
Health economics.

**Marc A. Coram, PhD.** Assistant Professor, Department of Health Research and Policy (Biostatistics).  
Identification and use of latent structure in high-dimensional data.

**Bradley Efron, PhD.** Max H. Stein Professor of Humanities and Science, and Professor, Departments of Statistics and of Health Research and Policy (Biostatistics).  
Statistical inference in biostatistical data; bootstrap methodology.

**Trevor J. Hastie, PhD.** Professor, Departments of Statistics and of Health Research and Policy (Biostatistics).  
Flexible statistical modeling; data mining, bioinformatics; statistical computing.

**Mark A. Hlatky, MD.** Professor, Departments of Health Research and Policy (Health Services Research) and of Medicine (Cardiovascular Medicine).  
Cardiovascular health services research; cost-effectiveness analyses; clinical outcomes research.

**Philip W. Lavori, PhD.** Professor and Chair, Department of Health Research and Policy (Biostatistics).  
Clinical trials; longitudinal studies; causal inference; cancer epidemiology; behavioral epidemiology.

**Balasubramanian Narasimhan, PhD.** Senior Research Scientist, Departments of Statistics and of Health Research and Policy (Biostatistics). Director, Data Coordinating Center, School of Medicine.  
Statistical computation and bioinformatics.

**Richard A. Olshen, PhD.** Professor, Professor, Departments of Health Research and Policy (Biostatistics) and (by courtesy) of Statistics and of Electrical Engineering.  
Statistical applications in medicine and biology.

**Mei-Chiung Shih, PhD.** Assistant Professor, Department of Health Research and Policy (Biostatistics).  
Clinical trials; longitudinal studies; adaptive designs; genetic epidemiology.

**Robert Tibshirani, PhD.** Professor, Departments of Health Research and Policy (Biostatistics) and (by courtesy) of Statistics.  
Statistical applications and data mining in genomics, proteomics, and other areas of medicine and biology.

**Wing H. Wong, PhD.** Professor, Departments of Statistics and of Health Research and Policy (Biostatistics).  
Microarray analysis; comparative genomics; statistical learning and computation.



## AFFILIATED FACULTY AND ACADEMIC STAFF WITH APPOINTMENT IN OTHER STANFORD UNIVERSITY DEPARTMENTS OR CENTERS

**Paul G. Fisher, MD, MPH.** Professor, Departments of Neurology and Neurological Sciences, and of Pediatrics. Pediatric neuro-oncology; cancer epidemiology.

**Henry T. Greely, JD.** Deane and Kate Edelman Johnson Professor, School of Law, and Professor (by courtesy), Department of Genetics. Legal, ethical, and social frontiers of bioscience.

**Christopher D. Gardner, PhD.** Associate Professor (research) of Medicine (Stanford Prevention Research Center). Nutritional science; cardiovascular epidemiology; complementary and alternative medicine.

**Randall S. Stafford, MD, PhD.** Associate Professor of Medicine (Stanford Prevention Research Center). Chronic disease prevention and treatment; evidence-based clinical practice.

**Marcia L. Stefanick, PhD.** Professor (research), Departments of Medicine (Stanford Prevention Research Center) and (by courtesy) of Obstetrics and Gynecology. Cardiovascular disease prevention; women's health.

**Marilyn A. Winkleby, PhD.** Professor (research), Departments of Medicine (Stanford Prevention Research Center) and (by courtesy) of Health Research and Policy (Epidemiology). Epidemiology of cardiovascular diseases.



## AFFILIATED FACULTY AND ACADEMIC STAFF WITH PRIMARY INSTITUTIONAL AFFILIATIONS OTHER THAN STANFORD UNIVERSITY

**Christina Clarke, PhD, MPH.** Research Scientist, Northern California Cancer Center. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer epidemiology; surveillance research.

**Scarlett Lin Gomez, PhD, MPH.** Research Scientist, Northern California Cancer Center. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer epidemiology; health disparities.

**Laurel A. Habel, PhD.** Research Scientist, Division of Research, Kaiser Permanente Northern California. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer epidemiology.

**Theresa Keegan, PhD.** Research Scientist, Northern California Cancer Center. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer surveillance and epidemiology.

**David E. Lilienfeld, MD, MBA, MPH, MSEngin.** Director, Drug Safety, FibroGen, Inc., South San Francisco, CA. Lecturer, Department of Health Research and Policy (Epidemiology). Pharmacoepidemiology.

**De-Kun Li, MD, PhD, MPH.** Senior Research Scientist, Division of Research, Kaiser Permanente Northern California. Lecturer, Department of Health Research and Policy (Epidemiology). Reproductive, prenatal, and pediatric epidemiology.

**Ingrid Oakley-Girvan, PhD, MPH.** Research Scientist, Northern California Cancer Center. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer epidemiology.

**Joe V. Selby, MD, MPH.** Director, Division of Research, Kaiser Permanente Northern California. Consulting Professor, Department of Health Research and Policy (Epidemiology). Clinical research, quality of care for diabetes and cardiovascular disease.

**Stephen K. Van Den Eeden, PhD.** Epidemiologist, Division of Research, Kaiser Permanente Northern California. Lecturer, Department of Health Research and Policy (Epidemiology). Cancer epidemiology, environmental and occupational health, urological epidemiology.

**A number of other Stanford faculty serve as research mentors to our students. Recent faculty who were thus affiliated included the following:**

**Aijaz Ahmed, MD,** Assistant Professor, Department of Medicine (Gastroenterology and Hepatology). **Gregory Albers, MD,** Professor (Neurology & Neurological Sciences). **Bruce Arnow,** Professor, Department of Psychiatry and Behavioral Sciences. **Janice Brown,** Associate Professor of Medicine, Division of Blood and Marrow Transplantation. **Eliza Chakravarty, MD,** Assistant Professor, Department of Medicine (Immunology & Rheumatology). **Ramsey Cheung, MD,** Associate Professor, Department of Medicine (Gastroenterology & Hepatology). **David Feldman, MD,** Professor Emeritus, Department of Medicine (Endocrinology, Gerontology & Metabolism). **James M. Ford, MD,** Associate Professor, Departments of Medicine (Oncology) and of Genetics, and (by courtesy) of Pediatrics. **Lauren B. Gerson, MD, MSc,** Assistant Professor, Department of Medicine (Gastroenterology & Hepatology). **Jeffrey Gould MD, MPH,** Robert L Hess Professor of Neonatology, Department of Pediatrics. **Lynne C. Huffman, MD,** Associate Professor (research), Departments of Pediatrics and (by courtesy) of Psychiatry & Behavioral Science. **David A. Katzenstein, MD,** Professor, Department of Medicine (Infectious Diseases). **Emmet B. Keefe, MD,** Professor, Department of Medicine (Gastroenterology & Hepatology). **William Kennedy,** Associate Professor of Urology at the Stanford University Medical Center. **Marteen Lansberg, MD, PhD, MS,** Assistant Professor, Department of Neurology & Neurological Sciences; **Michael Link, MD,** Professor, Department of Pediatrics (Hematology & Oncology). **Sean Mackey, MD, PhD,** Associate Professor, Department of Anesthesia (Pain Management). **R. Scott Mitchell, MD,** Professor, Department of Cardiothoracic Surgery. **Thomas Quertermous, MD,** Professor, Department of Medicine (Cardiovascular Medicine). **Christy I. Sandborg, MD,** Associate Professor, Department of Pediatrics (Rheumatology). **Linda Shortliffe,** Stanley McCormick Memorial Professor in the School of Medicine. **David Stevenson, MD,** Professor, Department of Pediatrics (Neonatology). **Sandhya Srinivas, MD,** Associate Professor, Department of Medicine (Oncology).

## PROGRAM SUMMARY

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| <b>Program of Study</b>    | <p>The Graduate Program in Epidemiology offers interdisciplinary instruction and research opportunities leading to the M.S. degree in epidemiology. Our program has research strengths in cancer epidemiology, cardiovascular disease epidemiology, infectious disease epidemiology, neuroepidemiology, as well as aspects of epidemiologic methods, genetic epidemiology, musculoskeletal disease epidemiology, women's health and reproductive epidemiology, and environmental and occupational epidemiology.</p> <p>The M.S. Program is designed for students with interests in clinical epidemiology who anticipate careers in translational and clinical research. Many students are clinical investigators with an M.D. or comparable degree, often in fellowship stages of their training. Other applicants are from concurrent doctoral or professional programs, or have the baccalaureate degree and anticipate careers in clinical epidemiology or medicine. The Program provides instruction in epidemiologic methods, statistical analysis, and other areas essential to patient-oriented clinical research. Applicants should have previous course work in biology and statistics or mathematics. To receive the M.S. degree, all students are expected to obtain a thorough grounding in epidemiologic methods and applied biostatistics, and to demonstrate research skills through completion of a master thesis. The M.S. Program is typically completed in 4 to 6 quarters.</p> |
| <b>Research Facilities</b> | Students may work on a wide variety of research projects with faculty at Stanford and at other nearby institutions. Ongoing faculty research involves collaborations with the Northern California Cancer Center, the Division of Research at the Kaiser Permanente Medical Program of Northern California, and other institutions. Research may be conducted at Stanford's state of the art library and computer facilities.   |
| <b>Financial Aid</b>       | Prospective students are encouraged to seek funding through their clinical training program and to apply for career development awards and similar funding from the National Institutes of Health and professional organizations. KL2 tuition and stipend support is available for some physician fellows and TL1 tuition support for some medical students.   |
| <b>Cost of Study</b>       | Full tuition for 2009-10 is \$12,010 per quarter. The 8-10 unit rate is \$8,100 per quarter.   |
| <b>Cost of Living</b>      | A variety of on-campus and off-campus housing options are available. In general, on-campus housing is more affordable than off-campus housing.   |
| <b>Student Group</b>       | Stanford University has a total student enrollment of approximately 15,000, of whom about 8,200 are graduate students. Students in the Epidemiology program have numerous opportunities to meet students in other departments and programs.  |
| <b>Location</b>            | Stanford University is located in the San Francisco Bay area, 40 miles south of San Francisco and the Pacific Ocean. The campus is within two hours of the Monterey Peninsula, including Carmel and Pacific Grove, and within four hours of the Sierra Nevada, which features excellent skiing and hiking. San Francisco Bay and the foothills of the Santa Cruz mountains, which provide opportunities for biking and hiking year-round, are also just a few minutes away.  |
| <b>The University</b>      | Stanford is a private university founded in 1885 by Leland and Jane Stanford in memory of their only son. The 8,000 acre campus stretches from the city of Palo Alto westward into the foothills. Stanford has an ongoing commitment to the excellence of its educational programs.  |
| <b>Applying</b>            | We consider applications throughout the year, but we encourage applicants to submit complete applications no later than May 30 to start in the following Autumn Quarter. Late applications may be considered in some circumstances. The Graduate Record Examination (GRE) score requirement may be waived for Clinical Research Track applicants with an MD or similar degree if Medical College Admission Test (MCAT) scores are submitted. Because of its strong belief in the value of diversity, Stanford especially encourages applicants whose culture, socioeconomic status, sex, race, ethnicity, work and life experiences, skills, and interests provide additional dimensions to University programs. Applicants from non-English speaking countries should provide evidence of competence in English on the Test of English as a Foreign Language (TOEFL).   |
| <b>Program Information</b> | <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><i>For further program information:</i></p> <p>Graduate Program in Epidemiology<br/>Department of Health Research and Policy<br/>Stanford University School of Medicine<br/>Stanford, California 94305-5405<br/>Telephone: (650) 723-5456<br/>FAX: (650) 725-6951<br/>Email: <a href="mailto:epiprogram@med.stanford.edu">epiprogram@med.stanford.edu</a><br/><a href="http://med.stanford.edu/epidemiology">http://med.stanford.edu/epidemiology</a></p> </div> <div style="width: 45%;"> <p><i>For application forms and information:</i></p> <p>Graduate Admissions Office<br/>630 Serra Street, Suite 120<br/>Stanford University<br/>Stanford, California 94305-6032<br/>Telephone: (650) 723-4291<br/><a href="http://gradadmissions.stanford.edu">http://gradadmissions.stanford.edu</a></p> </div> </div>  |

<http://med.stanford.edu/epidemiology/>

