

# EPIDEMIOLOGY PROGRAM

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## MASTER OF SCIENCE

The Graduate Interdisciplinary 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 a large number of Stanford University departments and centers, and from notable Bay Area research facilities. The program seeks students with the potential to be future leaders in clinical and translational research, epidemiology, and allied disciplines. The program provides researchers from diverse clinical backgrounds the knowledge and skills to become clinical investigators; it also offers an introduction to epidemiology for individuals with research experience in the behavioral and social sciences and for others without a clinical background. Research strengths include cancer epidemiology, cardiovascular disease epidemiology, infectious disease epidemiology, musculoskeletal disease epidemiology, neuroepidemiology, and aspects of epidemiologic methods, genetic epidemiology, reproductive epidemiology and women's health, and environmental and occupational epidemiology.

Two academic tracks lead to the M.S. degree; these tracks are not declared on Axess and they do not appear on the transcript or the diploma. The Clinical Epidemiology track, sometimes referred to as the Clinical and Translational Research track, is for physicians and others with specific interests in clinical and translational research. Students in this track receive training in epidemiologic methods, statistical analysis, and other areas essential to patient-oriented clinical research. These students are typically clinical investigators with an M.D. or comparable clinical degree, often during the fellowship stage of their postgraduate training, or in an early stage of faculty development, and are often considering careers in academic medicine. The Traditional Epidemiology track serves students without prior clinical training. One category of such students consists of behavioral and social scientists who wish to bring an epidemiologic orientation to their research. Students pursuing a Ph.D. in these disciplines may wish to consider a concurrent master's degree in Epidemiology. The traditional track also serves as an introduction to epidemiology for students with baccalaureate degrees who are considering careers in epidemiology or a related discipline.

University requirements for the M.S. degree are described in the "Graduate Degrees" section of this bulletin.

To receive the M.S. degree, students in both instructional tracks are expected to obtain a grounding in epidemiologic methods and applied biostatistics and to demonstrate research skills through the completion of a master's thesis. Required courses are HRP 225, Design and Conduct of Clinical and Epidemiologic Studies; HRP 226, Advanced Epidemiologic and Clinical Research Methods; HRP 236, Epidemiology Research Seminar, 3 units required; HRP 259, Introduction to Probability and Statistics for Epidemiology; HRP 261, Intermediate Biostatistics; HRP 262, Regression, Prediction, Survival Analysis; and a master's thesis with 12 or more units. Students in the Clinical Epidemiology track must also complete HRP 251, Design and Conduct of Clinical Trials; and MED 255, Responsible Conduct of Research. Students are required to select at least two other courses in Epidemiology. Students are assigned a methodology mentor, who is usually from the Department of Health Research and Policy, and a research mentor, who may be from another department. For the students in the Clinical Epidemiology track, the research mentor is often an affiliated faculty member from the department of the student's clinical specialty. Other programmatic requirements are described in *Graduate Interdisciplinary Program in Epidemiology, Information and Guidelines*, available from the educational coordinator in the Department of Health Research and Policy.

## COURSES

The course listings of individual departments participating in the Graduate Interdisciplinary Program in Epidemiology should be consulted for complete descriptions.