

# EPIDEMIOLOGY PROGRAM

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*Neurology and Neurological Sciences:* Leslie Dorfman (Professor)

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## GRADUATE PROGRAMS

The Epidemiology Program offers interdisciplinary instruction and research opportunities leading to the M.S. and Ph.D. degrees in Epidemiology. The program has strengths in the following areas of epidemiology: cancer; cardiovascular, infectious, and neurological diseases; clinical epidemiology; genetics; some aspects of epidemiologic methods; and environmental and occupational epidemiology.

## MASTER OF SCIENCE

The M.S. program is designed to provide training in epidemiologic methods to professionals in a variety of related fields and to serve as an introduction to those with bachelor's degrees who are considering careers in epidemiology. Applicants to the M.S. program should have previous course work in biology and statistics or mathematics.

To receive the degree, students are expected to obtain a thorough grounding in epidemiologic methods and applied biostatistics and to demonstrate research skills through the completion of a master's thesis. A total of 45 units of course work, including a 12-credit master's thesis, must be successfully completed. Required courses are HRP 225, Design and Conduct of Epidemiologic Studies, HRP 226, Advanced Epidemiologic Methods, HRP 238, Seminar/Journal Club in Epidemiology, HRP 259, Introduction to Probability and Statistics for Epidemiology, HRP 261, Intermediate Biostatistics, and HRP 262, Regression, Prediction, Survival Analysis, and a master's thesis of 12 units or more. In addition, M.S. students are required to select two other courses in Epidemiology. The master's thesis must be read and approved by two faculty members.

A new curriculum in clinical research methods has been established specifically to enhance the training of clinical investigators. This program is aimed primarily at physicians who have completed residency, are entering clinical fellowships, and plan to engage in patient-oriented clinical research. It may also be suitable for physicians at other points in their careers. Requirements of the program are similar to those of the M.S. degree described above, with the addition of HRP 251, Design and Conduct of Clinical Trials, and MED 255, Responsible Conduct of Research.

## DOCTOR OF PHILOSOPHY

The Ph.D. program in Epidemiology is designed to prepare individuals for careers in research and teaching in epidemiology. It is recommended that applicants have previous course work in biology and statistics or mathematics. Normally, successful applicants will have a master's degree in a relevant field or at least two years of relevant research experience.

Candidates for the Ph.D. degree must complete 135 units of graduate course work and research. Course requirements include all those listed for master's students (unless taken previously), HRP 224, Statistical Issues in Epidemiology, and GENE 344A, Genetic Epidemiology. A student must select a specialty area (for example, cardiovascular diseases, cancer, clinical epidemiology, genetics, infectious diseases, neurological diseases). Additional courses are required in each specialty area. Requirements for the specific specialty areas may be obtained from the office of the program coordinator.

Successful completion of three written qualifying examinations is required for admission to Ph.D. candidacy. The qualifying examinations cover: (1) epidemiologic methods, (2) biostatistics, and (3) a specialty area (for example, epidemiology and pathobiology of cancer, or cardiovascular diseases). Requirements also include the presentation of a Ph.D. dissertation as the result of independent investigation and constituting a contribution to knowledge in epidemiology. The candidate must then successfully pass the University oral examination, which is taken only after the student has substantially completed his or her research. The examination is conducted by a committee and is preceded by a public seminar in which the research is presented by the candidate.

## COURSES

The course listings of individual departments participating in the Program in Epidemiology should be consulted for complete descriptions.  
*Consulting Professor:* David Cox

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