

Epidemiology, Ph.D.

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<https://publichealth.uci.edu/degrees-programs/doctoral-programs/phd-epidemiology/>

The mission of the Ph.D. program in Epidemiology is to train and educate graduate students, so they are on a path to becoming independent scientists who can formulate original research questions, lead epidemiologic related research, as well as teach and communicate epidemiologic methods and research findings to scientific and lay groups. Ph.D. students receive further training in advanced epidemiologic and biostatistical methods, develop content expertise in an area relevant to their research interests, gain experience and practice communicating via coursework, seminars, research experience, and serving as Teaching Assistants.

The first year is largely devoted to required course work in epidemiology, biostatistics, and developing content expertise of individual research interests via elective courses and directed study. There is a comprehensive written exam at the end of the first year on core epidemiologic and biostatistical methods to ensure basic mastery. The second year has further coursework in advanced epidemiologic methods and concepts, further biostatistical training, and continued development of content expertise specific to individual research interests with elective courses and directed study courses. Most to all coursework is complete after two academic years and the student is expected to advance to candidacy sometime during the third year by presenting and defending a PhD thesis proposal to the faculty. The remaining time with the program is largely devoted to completing the thesis. The formal defense of the thesis is a public event. The overall course of study is expected to be three to five years. Graduates typically go on to post-doctoral academic positions, research scientist positions, faculty positions, or positions in government or industry.

Master's level degrees in epidemiology, public health, other health-related disciplines, or clinical training are the preferred preparation for admission to the Ph.D. in Epidemiology. However, applicants with background in other disciplines are encouraged to apply but may be required to take supplementary courses to fulfill pre-requisites for some graduate level courses in epidemiology and biostatistics.

Applicants must meet the general admission requirements of the UCI Graduate Division and submit both the Application for Graduate Admission and the School of Public Health Application Service (SOPHAS) application to be considered for admission.

Applications to graduate study in the Department of Epidemiology are available through the Graduate Division website. Contact EpiGrad@uci.edu (<http://catalogue.uci.edu/mail:EpiGrad@uci.edu>) for additional information.

Ph.D. students who do not have a degree from a Council on Education for Public Health (CEPH)-accredited public health school or program, must take PUBHLTH 200 to meet the CEPH-required 12 learning objectives.

Ph.D. requirements: At least 72 quarter credit units and at least 12 dissertation unit credits (84 units total).

In addition to completing the course requirements for the M.S. in Epidemiology, Ph.D. students are required to complete the following.

Program Requirements

A. Complete:	
EPIDEM 200D	Advanced Epidemiologic Methods and Causal Inference I
EPIDEM 202	Genetic Epidemiology
EPIDEM 204D	Biostatistics IV: Survival Analysis
EPIDEM 282	Epidemiology Department Seminar (must be taken four times for the Ph.D.)
EPIDEM 297	PhD Degree Dissertation Research & Writing (must be taken for at least 12 units, taken in lieu of EPIDEM 296)
B. Complete 20 units of electives/directed study selected from the list below	

Approved Electives

EPIDEM 200E	Advanced Epidemiologic Methods and Causal Inference II
EPIDEM 201	Cancer Epidemiology
EPIDEM 205	Environmental Epidemiology
EPIDEM 212	Methods for Design and Implementation of Epidemiologic Research
EPIDEM 215	Introduction to Statistical Genetics
EPIDEM 232	Cardiovascular Disease Epidemiology and Prevention
EPIDEM 244	Toxic Chemicals in Environment
EPIDEM 275	Special Topics in Epidemiology
EPIDEM 298	Directed Study in Epidemiology
EPIDEM 299	Independent Study in Epidemiology

PUBHLTH 208	Advances in Social Epidemiology
PUBHLTH 209	Methods of Demographic Analysis
PUBHLTH 210	Theory-Driven Secondary Data Analysis
PUBHLTH 213	Epidemiology in Global Health
PUBHLTH 222A	Health Policy and Management
PUBHLTH 223	Risk Communication
PUBHLTH 242	Theories of Health Communication
PUBHLTH 244	Health Behavior Theory
PUBHLTH 245	Health Promotion Planning
PUBHLTH 246	Social Research Methods
PUBHLTH 247	Program Evaluation
PUBHLTH 248	Fundamentals of Maternal and Child Health - Programs, Problems, and Policy
PUBHLTH 251	Models of Practice and Intervention at the Community Level
PUBHLTH 264	Introduction to Environmental Health Science
PUBHLTH 269	Air Pollution, Climate, and Health
PUBHLTH 272	Health Psychology
PUBHLTH 275	Environmental Modeling and Risk Management
PUBHLTH 277A	Target Organ Toxicology I
PUBHLTH 277B	Target Organ Toxicology II
PUBHLTH 278	Industrial Toxicology
PUBHLTH 279	Special Topics in Environmental & Occupational Health
PUBHLTH 280	Global Burden of Disease
PUBHLTH 281	Infectious Disease Epidemiology
PUBHLTH 282	Climate Change and Global Health
PUBHLTH 283	Geographic Information Systems for Public Health
PUBHLTH 286	Advanced Geographic Information Systems and Spatial Epidemiology
PUBHLTH 287	Qualitative Research Methods in Public Health
PUBHLTH 289	Special Topics in Global Health and Disease Prevention
PUBHLTH 290	Special Topics in Public Health
PUBHLTH 291A	Seminar: Advances and Challenges in Public Health
PUBHLTH 291B	Seminar: Advances and Challenges in Public Health
PUBHLTH 291C	Seminar: Advances and Challenges in Public Health
PUBHLTH 292	Ethics and Responsible Conduct of Research in Public Health
PUBHLTH 293	Foundations of Clinical and Translational Science
PUBHLTH 294	Research Communication in Public Health
PUBHLTH 297	Research Design and Proposal Writing
PUBHLTH 298	Directed Studies in Public Health
PUBHLTH 299	Independent Study in Public Health
EHS 201	Case Studies in Environmental Toxicology
EHS 202	Principles of Environmental Toxicology
EHS 204	Neurotoxicology
EHS 212	Inhalation Toxicology
EHS 290	Independent Study in Environmental Toxicology
EHS 297	Advanced Topics in Occupational Toxicology
EHS 298	Seminar in Environmental Health Sciences
EHS 299	Research Problems