

Public Health, Ph.D.

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The distinct mission of the Ph.D. in Public Health is to train graduate students to conduct original research on the determinants of health status of populations, and the translation of such knowledge to improve health and prevent disease and disability. Graduates of the Ph.D. program will be prepared for independent and collaborative research careers, and to teach at advanced levels of instruction. Students enrolled in the Ph.D. in Public Health must concentrate in Global Health, Disease Prevention, or Biobehavioral Mechanisms of Health.

Students enroll in the Ph.D. in Public Health in the fall quarter of each year. Applicants are encouraged to start the application process early by consulting with faculty members whose research activities align with the applicant's interests and academic background. The deadline for receipt of all application materials is December 1. Applicants must choose one of the two three available concentrations at the time of application: Global Health, Disease Prevention, or Biobehavioral Mechanisms of Health. Master's level degrees in health-related disciplines are the preferred preparation for admission to the Ph.D. in Public Health. Students who entered the program without a master's level degree from a Council on Education for Public Health (CEPH)-accredited program must complete PUBHLTH 200 Foundations of Public Health as part of their preparatory module. Also, applicants to the Ph.D. in Public Health who come with undergraduate degrees from other related majors might be required to take supplementary courses in addition to the preparatory module of the Ph.D. program.

All applicants must have an overall grade point average of B (3.0 on a 4.0 scale) or better and take the Graduate Record Examination (GRE) general test. 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 in order to be considered for admission.

Each Ph.D. student must serve as a teaching assistant for at least two quarters during the graduate program. If English is not the student's first language, the student must pass a campus-approved oral English proficiency exam prior to serving as a teaching assistant.

For more information on admissions, visit the Public Health website (<http://publichealth.uci.edu/>) or contact phgo@uci.edu. (phgo@uci.edu)

Concentration in Global Health

The focus of the Ph.D. research concentration in Global Health is to train excellence in research through engagement in hypothesis-driven projects to investigate the global context of disease burden and the improvement of population health status. The program will attract candidates who seek to analyze problems at the intersection of risk, vulnerability, and disease. Activities may include investigation of strategies to make research results that have already produced benefits in one country or region effective in underprivileged regions. The program trains students in integrative expertise essential for global health research with hypotheses in the nexus of content (risk analysis), context (vulnerability assessments), and process (translation of knowledge to reduce the burden of disease).

The specific learning objectives of the Concentration in Global Health are for graduates of the degree to:

- a. Demonstrate knowledge of the major theoretical underpinnings of advances in global health research.
- b. Explain the relationship between theory and research methods focused on understanding the association of risk, vulnerability, and outcome in global health.
- c. Compare and contrast the health status of different populations with respect to their burden of disease.
- d. Formulate research hypotheses in the intersection of risk factors, vulnerable populations, and burden of disease.
- e. Compose research proposals and conduct original research resulting in discoveries that contribute to improved understanding of risk factors and variations in disease burden in a population, and strategies to alleviate the burden at the global level.

Concentration in Disease Prevention

The focus of the Ph.D. concentration in Disease Prevention is to train excellence in research to discover insights into how human behavior, social constraints, and other contextual factors influence strategies to prevent disease in populations that are vulnerable to risk factors. The program emphasizes the ecological model of disease prevention, with research hypotheses emerging through multi-layered analysis of determinants of health status, including individual, interpersonal, organizational, community, and overarching policy. Students generate the hypotheses for their research in the nexus of risk factors, health behavior, and vulnerable populations.

The specific learning objectives of the Concentration in Disease Prevention are:

- a. Demonstrate knowledge of the major theoretical underpinnings of strategies for disease prevention.
- b. Explain the relationship between theory and research methods focused on understanding the association of risk, behavior, and vulnerability with respect to disease pathways.
- c. Analyze interrelationships among the determinants of illness and maladaptive health behaviors using theories of health behavior.
- d. Formulate research hypotheses in the intersection of health risk factors, health behavior, and health promotion and policies toward disease prevention.
- e. Compose research proposals and conduct original research resulting in discoveries that contribute to improved understanding of the role of behavior and health promotion strategies in mitigating the vulnerability to health risk factors in specific populations, with the goals of applying the knowledge to disease prevention.

Concentration in Biobehavioral Mechanisms of Health

The focus of the Ph.D. concentration in Biobehavioral Mechanisms of Health is to train excellence in research to discover the pathways and mechanisms linking social and psychological factors with biological processes and physical health. Biobehavioral research considers psychological, social, and cultural, and biological processes that underlie health outcomes, with a strong emphasis on neuroimmune pathways, autonomic nervous system physiology, neuroscience and human genomics. A focus on biobehavioral mechanism of health incorporates the potential for contextual influences, psychological stress processes, and biological systems to influence health. It bears potential to help solve our most pressing public health problems.

The specific learning objectives of the Concentration in Biobehavioral Mechanisms of Health are:

- a. Demonstrate knowledge of the major theoretical and methodological underpinnings of advances in biobehavioral health research.
- b. Integrate theory and research methods to identify, assess, and alter biobehavioral pathways to health.
- c. Analyze interrelationships among social, psychological, and biological factors impacting health and illness.
- d. Formulate research hypotheses in the intersection of biobehavioral health mechanisms and public health.
- e. Compose research proposals and conduct original research resulting in discoveries that contribute to improved understanding of the role of biobehavioral mechanisms of health in specific populations, with the goals of applying the knowledge to public health.

Career Information

The Ph.D. in Public Health prepares graduates to initiate independent and collaborative research careers in academic institutions, to teach at advanced levels of instruction, and to lead research efforts at agencies dedicated to public health at all levels of organization. Graduates of the Ph.D. in Public Health will gain employment at research universities, government agencies, or private sector organizations including research institutes, hospitals, and public health foundations.

General Admission Requirements

Students enroll in the Ph.D. in Public Health in the fall quarter of each year. Applicants are encouraged to start the application process early by consulting with faculty members whose research activities align with the applicant's interests and academic background. The deadline for receipt of all application materials is December 1. Applicants must choose one of the three available concentrations at the time of application: Global Health, Disease Prevention, or Biobehavioral Mechanisms of Health. Master's level degrees in health-related disciplines are the preferred preparation for admission to the Ph.D. in Public Health. Students who entered the program without a master's-level degree from a Council on Education for Public Health (CEPH)-accredited program must complete PUBHLTH 200 as part of their preparatory module. Also, applicants to the Ph.D. in Public Health who come with undergraduate degrees from other related majors might be required to take supplementary courses in addition to the preparatory module of the Ph.D. program.

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Program Requirements

A main feature of the Ph.D. in Public Health is the engagement in dissertation research that utilizes scientific inquiry and considers multi-level analysis of public health questions. We integrate this feature in the three concentrations, each with knowledge modules and creative activity that must be satisfied in partial fulfillment of the degree requirements. All Ph.D. students are required to complete a minimum of 72 quarter-units according to the following modules:

Preparatory Module	
PUBHLTH 206B	Intermediate Epidemiology

PUBHLTH 204A	Biostatistics I: Introduction to Statistical Methods
PUBHLTH 204B	Biostatistics II: Intermediate Statistical Methods
PUBHLTH 294	Research Communication in Public Health
PUBHLTH 298	Directed Studies in Public Health
PUBHLTH 246	Social Research Methods
Methods Module	
Select four courses from the following:	
PUBHLTH 283	Geographic Information Systems for Public Health ¹
PUBHLTH 286	Advanced Geographic Information Systems and Spatial Epidemiology
PUBHLTH 287	Qualitative Research Methods in Public Health
PUBHLTH 247	Program Evaluation
PUBHLTH 209	Methods of Demographic Analysis
PUBHLTH 206C	Advanced Epidemiologic Methods
PUBHLTH 210	Theory-Driven Secondary Data Analysis
PUBHLTH 204C	Biostatistics III: Advanced Statistical Methods
PUBHLTH 251	Models of Practice and Intervention at the Community Level
PUBHLTH 293	Foundations of Clinical and Translational Science
EDUC 234	Measurement and Psychometrics
EDUC 265	Applied Regression Analysis for Education and Social Scientific Research
EDUC 266T	Design-Based Implementation Research
EDUC 280	Research Methods: Hierarchical Linear Modeling
EPIDEM 275	Special Topics in Epidemiology
PUBHLTH 290	Special Topics in Public Health
Concentration Module: Global Health	
Select four courses from the following:	
PUBHLTH 213	Epidemiology in Global Health
PUBHLTH 280	Global Burden of Disease
PUBHLTH 286	Advanced Geographic Information Systems and Spatial Epidemiology
PUBHLTH 289	Special Topics in Global Health and Disease Prevention ²
PUBHLTH 282	Climate Change and Global Health
PUBHLTH 290	Special Topics in Public Health ²
EARTHSS 200	Global Physical Climatology
Concentration Module: Disease Prevention	
Select four courses from the following:	
PUBHLTH 208	Advances in Social Epidemiology
PUBHLTH 244	Health Behavior Theory
PUBHLTH 245	Health Promotion Planning
PUBHLTH 242	Theories of Health Communication
PUBHLTH 223	Risk Communication
EPIDEM 232	Cardiovascular Disease Epidemiology and Prevention
PUBHLTH 290	Special Topics in Public Health ²
Concentration Module: Biobehavioral Mechanisms of Health	
Select four courses from the following:	
PUBHLTH 272	Health Psychology
PUBHLTH 244	Health Behavior Theory
PUBHLTH 248	Fundamentals of Maternal and Child Health - Programs, Problems, and Policy
PUBHLTH 290	Special Topics in Public Health ²
EPIDEM 202	Genetic Epidemiology
EPIDEM 201	Cancer Epidemiology

PSCI P283H	Psychoneuroimmunology
PSCI P273	Biobehavioral Aspects of Health and Illness
Research Module	
1. Establish a dissertation committee of faculty members.	
2. Submit a research proposal and advance to Ph.D. candidacy by defending the proposal.	
3. At least four quarters of PUBHLTH 296 under the supervision of the Chair of the dissertation committee.	
4. Complete online research ethics training via CITI or another equivalent training program in research ethics. This certification must remain current throughout the program duration.	

¹ Required for students in the Global Health Concentration.

² Special topics courses must be approved by the program director(s) as satisfying concentration requirements.

The qualifying examination consists of two parts. The first part is submission of a written research proposal to a Candidacy Committee of four faculty members consisting of three members with formal appointments in Public Health, and an external member. The external member must be a member of the Academic Senate but not appointed in the School of Population and Public Health. The chair of the candidacy committee must be faculty with primary faculty appointments in the department of the Ph.D. program. The second part is a public presentation and oral defense of the student's dissertation research proposal before the same committee. Advancement to doctoral candidacy is contingent on passing both parts of the qualifying examination, as judged by the Candidacy Committee. The dissertation proposal must be at a level of quality such that its execution will advance knowledge and have the potential to yield original peer-reviewed publications.

Advancement to doctoral candidacy is contingent on passing the qualifying examination. We expect students to sit for the qualifying examination by the beginning of their third year in the program. Ph.D. completion requires submission of an acceptable dissertation and oral defense. The normative time to degree is six years, and the maximum time permitted is eight years.

Teaching Requirement

Students enrolled in the Ph.D. in Public Health are required to serve as Teaching Assistants in public health courses for two quarters during their graduate study. Teaching is an important component of graduate training, as it helps graduate students learn how to communicate effectively about their field of knowledge. In addition, teaching experience is valuable to those planning for a career in academia. Graduate students with comparable prior teaching experience (e.g., through postgraduate degrees earned at UC Irvine or other comparable institution) may request a waiver of the teaching requirement.

Program in Law and Graduate Studies (J.D./Ph.D./M.P.H.)

Highly qualified students interested in combining the study of law with graduate qualifications in Public Health are invited to undertake concurrent degree study under the auspices of UC Irvine's Program in Law and Graduate Studies (PLGS). Students in this program pursue a coordinated curriculum leading to a J.D. from the School of Law in conjunction with a Master's or Ph.D. in Public Health.

Additional information is available from the PLGS Program Director's Office at 949-824-9217, or by email at plgs@law.uci.edu (%20plgs@law.uci.edu). A full description of the program, with links to all relevant application information, can be found in the Law School section of the (<http://catalogue.uci.edu/schooloflaw/#lawandgraduatestudies>) *Catalogue*.

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