

# ENVIRONMENTAL HEALTH SCIENCES DEPARTMENT

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People are exposed to a wide range of biological, chemical, and physical environmental stressors at home, work, and school as they go about their daily activities, such as working, commuting, eating, drinking, and exercising. An estimated 30 percent of the global burden of disease is attributable to environmental exposures that could be prevented. The Department of Environmental Health Sciences (EHS) equips students with interdisciplinary training to recognize and assess the impact of environmental hazards on human health and to identify solutions to reduce exposures to those hazards and prevent diseases in the population.

Students in EHS can select an emphasis in Environmental Exposure Science and Epidemiology, Environmental Toxicology, or Risk Assessment. Within these emphasized areas, there is flexibility for students to design, with their adviser, a program to meet individual needs. Students can take advantage of the wide variety of courses relevant to environmental health offered by the department and throughout the university, particularly those in the School of the Environment.

M.P.H. graduates of the EHS department find employment in city, state, and federal government agencies; environmental consulting firms; nongovernmental organizations; pharmaceutical companies; and private sector companies in the area of environmental or occupational health and safety. They also take research positions in academic organizations and government agencies. In addition, many students go on to pursue their Ph.D. and independent research careers.

## DEPARTMENTAL REQUIREMENTS

EHS 503	Public Health Toxicology	1
EHS 508	Environmental and Occupational Exposure Science	1
EHS 511	Principles of Risk Assessment	1
EHS 525	Seminar and Journal Club in Environmental Health (2 terms)	0
EHS 526	Seminar and Journal Club in Environmental Health (2 terms)	0
EPH 525	Thesis	2

One of the following:

EHS 560	Methods in Climate Epidemiology	1
EHS/CDE 566	Causal Inference Methods in Public Health Research	1

One of the following:

BIS 505	Biostatistics in Public Health II	1
CDE 534	Applied Analytic Methods in Epidemiology	1

*Note:* Students may apply for exemptions from these requirements based on previous course work, at the discretion of the course instructor.

## COMPETENCIES

Upon receiving an M.P.H. with a concentration in Environmental Health Sciences, the student will be able to:

- Describe the mechanisms of toxicity of biological, chemical, physical, and social stressors in the residential and workplace environments
- Evaluate the scientific merit and feasibility of different environmental epidemiologic study designs
- Design an environmental epidemiologic study
- Evaluate the scientific merit and feasibility of environmental and occupational exposure assessment approaches
- Design an environmental or occupational exposure study
- Produce a human health risk assessment using information from epidemiological, exposure, toxicological, and risk assessment studies on an environmental health issue