

Environmental Health Sciences MS Program (non-GHE students)

The EHS curriculum prepares students to assess the health impacts of physical, chemical, and biological agents in the environment and workplace, and the means for their measurement and control. EHS integrates several disciplines with emphasis on assessment of exposures to environmental contaminants, toxicology, environmental and occupational epidemiology, risk assessment, control strategies, and policy solutions. Students learn to apply tools in these disciplines to problems in both the U.S. and other parts of the world.

MS students have four semesters in which to complete requirements for their degree and have the option to pursue Degree Plan I (thesis option) or Degree Plan II (non-thesis option) as described below. MS students should discuss the Plan options with their faculty advisers during the first semester of academic residency and a final decision should be made by the end of the first academic year. In addition to the requirement of 8-12 units of advanced study in the major field of EHS (the number of units is determined by the Degree Plan as indicated below), MS students are required to take at least two courses outside the graduate group and, preferably, outside the SPH. The faculty adviser must approve these courses. Research efforts will begin in the second semester of the first year with Independent Research (PB HLTH 299, 2 units) under the supervision of the faculty adviser. During the second year, students will take additional units of PB HLTH 299 as they conduct their research projects or theses. Students will be encouraged to pursue their research during the summer between years one and two.

Plan I (Thesis Option)

This option requires at least 20 semester units of upper division and graduate courses, and a thesis. A minimum of 8 of these units must be in graduate courses (200 series) in EHS. No more than 6 units of the program may be research units (PB HLTH 299), unless the EHS graduate adviser requests special permission and the request is approved by the Dean of the Graduate Division. A minimum of two semesters of academic residence is required. Course units are not granted for the thesis. MS students must have a properly constituted thesis committee of three members, two of whom must be members of the EHS Graduate group (see section 2.3 for a list of faculty in the EHS Graduate Group). If a proposed committee member does not belong to the Academic Senate, the EHS Graduate Adviser must petition the Graduate Division for an exception. For filing requirements, including information on deadlines, preparing the thesis, registration, and use of human or animal subjects, please see [“Instructions for Preparing and Filing Your Thesis or Dissertation”](#) on the UC Berkeley Graduate Division website.

Plan II (Non-Thesis Option)

This option requires a minimum of 24 units of upper division and graduate courses. At least 12 of these units must be in graduate courses (200 level) in the student's major subject. Additionally, no more than 6 units may be research units (PB HLTH 299).

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REQUIREMENTS FOR THE EHS MS PROGRAM (NON-GHE STUDENTS)

Required Courses

PB HLTH 220C Health Risk Assessment, Regulation, and Policy (3) (Sp)

PB HLTH 250A Epidemiologic Methods I (3) (F)

or PB HLTH 250B Epidemiologic Methods II (4) (F)

PB HLTH 270 Introduction to Environmental Health Sciences (3) (F)

PB HLTH 270A Exposure Assessment and Control (3) (Sp)

PB HLTH 270B Toxicology (3) (Sp)

Two biostatistics courses are also required of which the following are generally selected (other courses can be substituted):

PB HLTH 142 Introduction to Probability and Statistics in Biology and Public Health (4) (F, Sp)

PB HLTH 145* Statistical Analysis of Continuous Outcome Data (4) (F)

*PB HLTH 145 will not be offered in fall 2017.

RECOMMENDED ADVANCED AND ELECTIVE EHS COURSES

Advanced courses

PB HLTH 220 Health Policy Decision Making (3) (F)

PB HLTH 256 Human Genome, Environment and Public Health (3) (Sp)

PB HLTH 267B Characterization of Airborne Contaminants (3) (Sp, every odd yr)

PB HLTH 269C Occupational Biomechanics (3) (Sp)

PB HLTH 269D Ergonomics Seminar (2) (F) (Not offered Fall 2017)

PB HLTH 269E Current Topics in Environmental Medicine (3) (F)

PB HLTH 270C Practical Toxicology (2) (Sp) (Not offered Spring 2017)

PB HLTH 271C Drinking Water and Health (3) (Sp)

PB HLTH 271E Policy for Health and Environment (3) (Sp)

PB HLTH 271G Public Health Implications of Global Climate Change (3) (Sp)

PB HLTH 290 Quantitative Exposure Assessment (3) (F, Sp)

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PB HLTH 290 Infectious Disease (2) (F)

PB HLTH 290 Global Air Quality & Public Health (2) (Sp)

Other Elective Courses

CY Plan 204C	Introduction to Geographic Information Systems (GIS) and City Planning (4) (Sp)
ENE, RES 100	Energy and Society (4) (F)
ENE, RES 102	Quantitative Aspects of Global Environ. Problems (4) (Sp)
ENE, RES 200	Energy Analysis (4) (F)
ESPM 148	Pesticide Chemistry & Toxicology (3) (Sp, alt. yrs.)
ESPM 160AC	American Environment & Cultural History (4) (F)
ESPM 161	Environmental Philosophy and Ethics (3) (F)
ESPM 167	Environmental Health & Development (3) (Sp)
Civ. Eng.111	Environmental Engineering (3) (F, Lab offered in Sp)
Civ. Eng. 114	Environmental Microbiology (3) (Sp)
Civ. & Eng.173	Groundwater & Seepage (3) (F)
Civ. & Eng. 218A	Air Quality Engineering (3) (F)
NUC ENG 162	Radiation Biophysics and Dosimetry (3) (Sp)
Boalt 271	Environmental Law & Policy (4) (F)
MBA 209F	Fundamentals of Business: An Introduction to Business for Graduate Students (3) (F)
PB HLTH 254	Environmental and Occupational Epidemiology (3) (Sp)