2-year MPH Program in Global Health and Environment

Background
Nearly 20 years ago, the Division of Environmental Health Sciences at the UC Berkeley School of Public Health launched the nation’s first graduate program in Global Health and Environment. Our 2-year MPH Program in Global Health and Environment builds on our academic distinction and international reputation in this area, providing students an opportunity to study, and develop solutions to, the most profound global environmental changes that are affecting the health of populations around the world.

This transdisciplinary MPH program emphasizes the analytical and practical skills necessary to protect the local, regional, and global environment, while achieving sustainable development. Students develop skills in epidemiology, global environmental health, statistics, and risk analysis in a global context, and can apply what they learn to address some of the most pressing and complicated environmental health challenges facing the global community. The curriculum emphasizes a sophisticated understanding of the sources, pathways, exposures, health impacts, and control measures for global environmental pollutants—including pesticides, air pollution, vector-borne diseases, greenhouse gases, waterborne infectious diseases, and industrial contaminants—at the household, community, and global levels.

Program features
• Learn and research how human populations—especially the most vulnerable members of society, such as young children, pregnant women, and the poor—are affected by microbial and chemical contamination of water, air pollution, climate change, industrialization and unplanned urbanization.
• Take advantage of our faculty’s many international collaborations and global research projects.
• Connect with global health leaders, apply for research funding, and network with peers through Berkeley’s Center for Global Public Health.
• Form partnerships to tackle major global health and environment challenges—such as TB in slums, dengue in megacities, and waterborne diseases in developing countries—through Berkeley’s Center for Emerging and Neglected Diseases.

Competencies of the MPH Program in Global Health and Environment (GHE)
Upon completion of the GHE MPH program, graduates will be able to:
• Assess the major forces that influence the health of populations around the world.
• Critically evaluate major global health priorities and the reasons for their prioritization.
• Define environmental justice and how it relates to environmental health.
• Explain climate change and potential impacts on health, as well as major mitigation and adaptation strategies.
• Identify the sources and health effects of major environmental and occupational hazards.
• Describe general mechanisms of toxicity relevant for these hazards and interpret data to assess hazards.
• Describe how environmental and occupational exposures are measured.
• Interpret epidemiologic data to assess evidence for health effects caused by environmental and occupational exposures.
• Identify factors that affect susceptibility and vulnerability of sub-populations to health effects of environmental and occupational exposures.
• Use risk assessment and other methods to assess hazards and identify ways to reduce them.
• Organize written and oral material for EHS presentations and communicate to diverse audiences.
Curriculum of the MPH Program in Global Health and Environment (GHE)

School of Public Health Basic Knowledge “Breadth” Courses (required)
- Health Policy & Management: PH 200J (Fall)
- Health and Social Behavior: PH 200L (Fall)
- Summer Field Placement (Internship): PH 297 (Summer, register in Fall)

School of Public Health Coursework on Essential Methods (required)
- Epidemiologic Methods I or II: PH 250A or PH 250B (Fall)
- Biostatistics – Probability and Statistics: PH 142 (Fall and Spring)
- Biostatistics – Continuous or Categorical Data Analysis: PH 145 (Fall) or PH 241 (Spring)

EHS Core Courses (required)
- Introduction to Environmental Health Sciences: PH 270 (Fall of Year 1)
- EHS MPH Seminar: PH 292 (Spring of both Years)

EHS “Selectives” (GHE MPH students must take at least one)
- Toxicology: PH 270B (Spring)
- Exposure Assessment and Control I: PH 270A (Spring)
- Risk Assessment, Regulation and Policy: PH 220C (Spring)
- Science and Policy for Environmental Health: PH 271E (Spring)

GHE MPH “Selectives” (GHE MPH students must take at least two)
- Global Climate Change and Health: PH 271G (Spring)
- Drinking Water and Health: PH 271C (Spring)
- Environmental Determinants of Infectious Disease: PH 273 (Fall)
- Air Pollution, Climate and Health: PH 290.3 (Spring)
- Introduction to GIS for Public Health: PH W272A (Jan-Mar)
- Applied GIS for Public Health: PH W272V (Mar-May)
- Introduction to GIS and City Planning: CRP 204C (Spring)

Strongly Recommended Electives outside EHS
- Principles of Infectious Disease: PH 260A (Fall)
- Impact Evaluation for Health Professionals: PH 235 (Fall)
- Family Planning, Population Change and Health: PH 213A (Fall)
- Global Health Economics: PH 226D (Fall)
- Global Poverty: Challenges and Hopes in the New Millennium: GPP 115 (Fall)
- Housing in Developing Countries: CRP 251 (Fall)
- Water and Development: ERG 275 (Spring, even years)
- Transnational Environmental Politics and Movements: ESPM 259 (Fall)
- Quantitative Aspects of Global Environmental Problems: ERG 102 (Spring)
Additional Global Electives and Advanced Coursework for GHE MPH

PH 267B Characterization of Airborne Chemicals (3) (Sp, odd yrs)
PH 290.2 Exposure Assessment & Control II (Sp, even yrs)
PH 269C Occupational Biomechanics (3) (Sp)
PH 269D Ergonomics Seminar (2) (F)
PH 269E Current Topics in Environmental Medicine (3) (F)
PH 212D Global Health Core Course (3) (Sp)
PH 292 International Internship Seminar (1) (F, Sp)
PH 212A International Maternal & Child Health (2) (F)
PH 256 Human Genome, Environment and Public Health (3) (Sp)
CE 111 Environmental Engineering (3) (F, Lab offered in Sp)
CRP 256 Healthy Cities (3) (F)
ESPM 167/PH C160 Environmental Health and Development (4) (Sp)
PH 219E Introduction to Qualitative Methods in PH Research (3) (Sp)
PH 205 Program Planning, Development, and Evaluation (3) (Sp)
PH 206D Food/Nutrition Policies/Pgms in Dev. Countries (3) (Sp, even yrs)
PH 211 Health and Human Rights (3) (F)
PH 252C Intervention Trial Design (3) (F)
CRP 220 Urban and Regional Economy (3) (F)
ESPM C234 Green Chemistry: Interdiscipl. Approach to Sustainability (3) (Sp)
ESPM 290.9 Biodiversity and Human Health (3) (Sp)
PH 253B Epidemiology and Control of Infectious Diseases (3) (Sp)

All information current as of November 20, 2017