

## Environmental Health Sciences Global Health & Environment (GHE)

### REQUIREMENTS FOR MS STUDENTS IN THE GHE PROGRAM

Students enrolled in the GHE program are required to take a set of courses covering four core skill areas: EHS, biostatistics and epidemiology, international development, and environmental health policy with a focus on problems in low- and middle-income countries. Elective courses can be chosen from upper division and graduate courses in the four core areas or in a range of closely related fields including, but not limited to: international health, demography, maternal and child health, urbanization and health cities, nutrition and malnutrition, environmental sciences, environmental engineering, industrial hygiene and occupational health, and energy and resources.

Students in the Division of Environmental Health Sciences are required to complete an Integrated Learning Experience that demonstrates knowledge and skills gained in the MPH program in Environmental Health Sciences (EHS) or the MPH or MS program in Global Health and Environment (GHE). All students must choose to undertake either a capstone or a thesis.

All students are encouraged to actively define the overall trajectory of their degree program, and a student's choice between a capstone and thesis plays a role in this. The capstone and thesis represent different but equally important approaches to examining a public health problem. With either option, students will incorporate the knowledge and skills gained through their coursework and other public health experiences into a final, culminating project and will also be able to describe how this culminating project contributes to their overall degree program and learning objectives.

#### Capstone Option

- The capstone allows students to make an applied contribution, such as the evaluation of an environmental health program, the development of an instrument, algorithm or method, a systematic review of the literature, or the development of a training manual for a community partner.
- Capstones allow students to delve deeper into a topic of interest, possibly expanding a course project or internship experience into new dimensions in order to further develop practical skills and professional experience.
- Students seeking more hands-on, practical environmental health skills—such as program evaluation, descriptive or exploratory research, needs assessment, proposal writing, or work with community partners—should choose a capstone.

#### Thesis Option

- The thesis enables students to develop skills in conducting research that tests a specific hypothesis(es) in environmental health by analyzing data and interpreting study results.
- The thesis study design must be appropriate for the data available and the scope of the student's knowledge. The student's Thesis Advisor can assist in determining the appropriate method of analysis for the project.
- Students who are interested in research-based careers often choose the thesis.

Both capstones and theses can solve important problems in the field; can yield publishable contributions in the literature; and can contribute new thinking on a topic.

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**Required Courses**

Environmental Health Sciences (3 Courses, courses in **bold face** are required)

**PB HLTH 270**                    **Introduction to Environmental Health Sciences  
(first term if possible) (3) (F)**

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

PB HLTH260A                Principles of Infectious Disease (4) (F)

or PB HLTH270B            Toxicology I (3) (F)

CRP 204C                    Introduction to GIS and City Planning (4) (Sp)

Biostatistics and Epidemiology (3 Courses, courses in bold face are required)

PB HLTH 142                Introduction to Probability & Statistics in Public Health (4) (F, Sp)  
or PB HLTH141            Introduction to Biostatistics (4), (Su)

PB HLTH 250A                Epidemiological Methods – I (3) (F, Su)  
**or PB HLTH 250B**            **Epidemiological Methods – II (4) (F)**

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

PB HLTH 241                Statistical Analysis of Categorical Data (4) (Sp)

PB HLTH 245                Introduction to Multivariate Statistics (4) (F)

\*PH HLTH 145                will not be offered in fall 2017

Students should take a minimum of 3 courses in either one of the following categories: (1) International Development or (2) Environmental Health Policy

**International Development**

ARE/PP C25                International Economic Development Policy (3) (F)

ARE C251/  
Econ C270A                Microeconomics of Development (3) (F)

Demography/  
Econ C275A                Economic Demography (3) (Sp)

CRP 115/  
Practice 115                Global Poverty and  
Global Poverty: Challenges and Hopes in the  
New Millennium (4) (F)

CRP 251                    Housing in Developing Countries (3) (F)

Develop.Studies C100    History of Development and Underdevelopment (4) (Sp)  
/Geography 112

ERG 275                    Water and Development (4) (Sp, even years)

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ESPM 169	Governance of Global Production (3) (Sp)
ESPM 260	International Environmental Politics (4) (F)
PB HLTH 213A	Family Planning, Population Change and Health (3) (F)
PB HLTH 226D	Global Health Economics (3) (F)

**Environmental Health Policy**

PB HLTH 290	Global Air Quality and Public Health (2) (Sp)
PB HLTH 271E	Science and Policy for Environment and Health (3) (Sp)
PB HLTH 220C	Health Risk Assessment, Regulation and Policy (3) (Sp)
ERG 102	Quantitative Aspects of Global Environmental Problems (4) (Sp)
PB HLTH 235	Impact Evaluation for Health Professionals (3) (F)

GHE Project Seminar (3-6 units to be taken during the last semester or during the summer)

PB HLTH 299 GHE Project Seminar (3-6) (F, Sp)

**Elective Courses**

Remaining units to be chosen from upper division or graduate courses in the above areas and from courses in a range of closely related fields, including but not limited to the following:

PB HLTH 212D	Global Health Core Course (3) (Sp) [required for the Global Health Specialty Area certificate – not environmentally oriented]
PB HLTH 292	International Internship Seminar (1) (F, Sp)
PB HLTH 212A	International Maternal & Child Health (2) (F)
PB HLTH 267B	Characterization of Airborne Contaminants (3) (Sp, every odd yr)
CE 111	Environmental Engineering (3) (F, Lab offered in Sp)
CRP 256	Healthy Cities (3) (F)
ESPM 167/ PB HLTH C160	Environmental Health and Development (4) (Sp)
PB HLTH 219E	Introduction to Qualitative Methods in Public Health Research (3) (Sp)
PB HLTH 205	Program Planning, Development, and Evaluation (3) (Sp)
PB HLTH 260B	Principles of Infectious Disease (4) (Sp)
PB HLTH 206D	Food and Nutrition Policies and Programs in Developing Countries (3) (F, every even yr)
PB HLTH 271G	Public Health Implications of Global Climate Change (3) (Sp) By petition

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**Courses for Designated Emphasis in Global Metropolitan Studies**

PB HLTH 211	Health and Human Rights (3) (F)
PB HLTH 252C	Intervention Trial Design (3) (F)
CRP 220	Urban and Regional Economy (3) (F)
ESPM 290-P009	Biodiversity and Human Health (3) (Sp)
PB HLTH 253B	Epidemiology and Control of Infectious Diseases (3) (Sp)
PB HLTH 271C	Drinking Water and Health (3) (Sp)