

Requirements for the MS in Environmental Health

(for students entering autumn 2020 or later)

| DEOHS Core Requirements | | |
|---|---|----------------------|
| Choose one: | | |
| BIOST 511 | Medical Biometry I [A] OR | (4) |
| BIOST 517 | Applied Biostatistics I [A] | (4) |
| EPI 511 | Introduction to Epidemiology [A] | 4 |
| ENV H 501 | Foundations of Env. & Occ. Health [A] | 4 |
| ENV H 502 | Assessing & Managing Risks from Human Exposure to Env. Contaminants [W] | 4 |
| ENV H 580 | Env. & Occupational Health Seminar [A,W,Sp] | 1+1+1=3 ¹ |
| ENV H 583 | Thesis Research Proposal Preparation [Sp] | 1(+2) ² |
| Minimum Credit Subtotal | | 20 |
| Option Specific Requirements | | |
| ENV H 503 | Adverse Health Effects of Env. & Occ. Toxicants [Sp] | 4 |
| ENV H 541 | Ecology of Env. Transmitted Microbial Haz. [A] | 3 |
| ENV H 552 | Environmental Chemistry of Pollution [Sp] | 4 |
| Minimum 6 credits from 2 of the 3 topic areas below: | | |
| <u>Waste Management:</u> | | |
| ENV H 445 | Solid Waste Management [A] | (3) |
| ENV H 546 | Hazardous Waste and Public Health [W] | (3) |
| <u>Air Pollution:</u> | | |
| ENV H 548 | Community Air Pollution [W] | (3) |
| <u>Water and Wastewater:</u> | | |
| ENV H 545 | Water, Wastewater, and Health [A] | (4) |
| Minimum Credit Subtotal | | 17 |
| Culminating Experience | | |
| ENV H 700 | Master's Thesis [E] | 9 |
| Electives | | |
| TBD | Additional elective credits as needed to reach total minimum of 58 credits ³ | Var. |
| Total Minimum Credits = | | 58 |

1. ENV H 580: Students are required to complete 3 quarters of this 1-credit course for a total of 3 credits.
2. ENV H 583 requires that students take 2 credits of either ENV H 700 (Thesis Preparation) or 600 (Independent Study) concurrently. If ENV H 700 is taken as part of this requirement, those 2 credits can count towards the minimum 9 credit ENV H 700 requirement.
3. Students select ENV H electives in consultation with their faculty advisor. Non-ENV H electives will be approved on a case-by-case basis.

[A] = Typically offered in autumn quarter
 [W] = Typically offered in winter quarter
 [Sp] = Typically offered in spring quarter
 [S] = Typically offered in summer quarter
 [E] = Available every quarter

Degree Competencies for the MS in Environmental Health

SPH/CEPH – Foundational Public Health Knowledge Learning Objectives

Profession & Science of Public Health

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge

Factors Related to Human Health

7. Explain the effects of environmental factors on a population's health
8. Explain biological and genetic factors that affect a population's health
9. Explain behavioral and psychological factors that affect a population's health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)

DEOHS All Graduate Student Degree Competencies

1. Apply the major components of the environmental and occupational health framework (problem formulation, hazard identification, dose-response assessment, exposure assessment, risk characterization, risk communication, risk management, evaluation, stakeholder engagement, and research) in order to address environmental public health problems experienced in the community or work environment.
2. Use epidemiological and statistical techniques to describe and analyze environmental and occupational health data
3. Formulate hypotheses and design and conduct experiments to test such hypotheses aimed at advancing knowledge in environment and occupational health sciences

DEOHS Degree-Specific Competencies – MS-EH

1. Describe the sources, pathways, and routes of exposure of microbial and chemical hazards in the environment
2. Apply measurement and/or modeling methods to microbial and chemical hazards
3. Recognize and explain personal, administrative/regulatory, and engineering controls for environmental hazards