

**Degree Requirements and Competencies for the MS in Environmental Health Sciences: Applied
Area of Emphasis: Environmental Public Health (effective summer 2022)**

Required Coursework

	Credits
DEOHS Common Core	
BIOST 511 (<i>Medical Biometry I</i> , Autumn)	4
EPI 511 (<i>Introduction to Epidemiology</i> , Autumn)	4
ENV H 501 (<i>Foundations of Environmental & Occupational Health</i> , Autumn)	4
ENV H 502 (<i>Assessing & Managing Risks from Human Exposure to Environmental Contaminants</i> , Winter)	4
ENV H 503 (<i>Adverse Health Effects of Environmental and Occupational Toxicants</i> , Autumn)	4
ENV H 580 (<i>Environmental and Occupational Health Sciences Seminar</i> , Autumn/Winter/Spring)	3 x 1 = 3 ¹
Area of Emphasis: Environmental Public Health	
ENV H 584 (<i>Environmental Health Policy and Practice</i> , Autumn)	4
Choose a minimum of 12 credits from the following: ENV H 506 (<i>Disasters and Public Health</i> , Autumn, 3 cr.) ENV H 509 (<i>Microbiome and Environmental Health</i> , Spring, 3 cr.) ENV H 518 (<i>Understanding and Managing the Health Risks of Climate Change</i> , Winter, 3 cr.) ENV H 521 (<i>Effective Communication Strategies for Environmental Public Health Professionals</i> , Spring, 2 cr.) ENV H 536 (<i>Health Impact Assessment</i> , Spring, 2 cr.) ENV H 538 (<i>Public Health and the Built Environment</i> , Winter, 2 cr.) ENV H 539 (<i>One Health: Human and Animal Health in a Changing Environment</i> , Spring, 3 cr.) ENV H 540 (<i>Food Safety and Health</i> , Quarter TBD, 3 cr.) ENV H 541 (<i>Ecology of Environmentally Transmitted Microbial Hazards</i> , Autumn, 3 cr.) ENV H 542 (<i>Detection and Control of Environmentally Transmitted Microbial Hazards</i> , Winter in odd years, 3 cr.) ENV H 544 (<i>Antibiotic Resistant Bacteria/Genes Impact on the Environment and Public Health</i> , Autumn, 4 cr.) ENV H 545 (<i>Water, Wastewater, and Health</i> , Autumn, 4 cr.) ENV H 546 (<i>Hazardous Waste and Public Health</i> , Quarter TBD, 3 cr.) ENV H 547 (<i>Environmental Change and Infectious Disease</i> , Spring, 3 cr.) ENV H 548 (<i>Community Air Pollution</i> , Winter, 3 cr.) ENV H 565 (<i>Geographic Information Systems (GIS) in Public Health</i> , Autumn, 3 cr.) ENV H 577 (<i>Risk Assessment for Environmental Health Hazards</i> , Autumn, 4 cr.)	12
Elective Courses ²	≥ 7
Culminating Experience (Thesis)	
ENV H 598 (<i>Degree Program Project/Portfolio</i> , All Quarters)	3
ENV H 599 (<i>Field Studies</i> , All Quarters)	3
Total Minimum Credits	52

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1. Three quarters of ENV H 580 are required for a total of 3 credits.
2. Student works with their faculty adviser to identify additional courses to reach or exceed the total minimum credit requirement. Elective courses can be ENV H courses or courses from other prefixes (e.g., EPI, BIOST, GH, etc.).

Additional Requirements

- Students in this degree program are required to complete a culminating project.

Degree Competencies

Upon completion of this degree program, you will be able to:

School of Public Health -- All MS Students

- Explain public health history, philosophy and values
- Identify the core functions of public health and the 10 Essential Services
- Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population's health
- List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
- Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
- Explain the critical importance of evidence in advancing public health knowledge
- Explain effects of environmental factors on a population's health
- Explain biological and genetic factors that affect a population's health
- Explain behavioral and psychological factors that affect a population's health
- Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
- Explain how globalization affects global burdens of disease
- Explain an ecological perspective on the connections among human health, animal health, and ecosystem health (e.g., One Health)
- Recognize the means by which social inequities and racism, generated by power and privilege, undermine health

DEOHS -- MS in Environmental Health Sciences: Applied

- 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
- Use epidemiological and statistical techniques to describe and analyze environmental and occupational health data

[Department of Environmental & Occupational Health Sciences](#), School of Public Health, University of Washington • Rev. 8/18/21

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Area of Emphasis: Environmental Public Health (*effective summer 2022*)**

- Identify a current, practical problem in environmental health sciences and collect, integrate and analyze relevant information to produce practical solutions.

DEOHS – Area of Emphasis: Environmental Public Health

- Describe the sources, pathways, and routes of exposure of environmental hazards
- Apply measurement and/or modeling methods to environmental hazards
- Recognize and explain individual and societal opportunities to prevent, mitigate, and/or adapt to environmental hazards