

**Degree Requirements and Competencies for the MS in Environmental Health Sciences: Applied
Area of Emphasis: Occupational Hygiene (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: Occupational Hygiene	
ENV H 550 (<i>Occupational and Environmental Disease</i> , Spring)	3
ENV H 553 (<i>Environmental Exposure Monitoring Methods</i> , Winter)	4
ENV H 555 (<i>Instrumental Methods for Industrial Hygiene Measurement: Laboratory</i> , Spring)	3
ENV H 557 (<i>Exposure Controls</i> , Winter)	4 ²
ENV H 560 (<i>Occupational Safety Management</i> , Winter)	4
ENV H 563 (<i>Health and Safety of Physical Agents in the Workplace</i> , Spring)	3
ENV H 564 (<i>Recognition of Health and Safety Problems in Industry</i> , Winter)	2
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

1. Three quarters of ENV H 580 are required for a total of 3 credits.
2. Students in this Area of Emphasis complete an additional 1-credit ventilation module in ENV H 557 for a total of 4 credits.

Additional Requirements

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

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

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

DEOHS – Area of Emphasis: Occupational Hygiene

- Develop comprehensive solutions to control health hazards associated with workplace exposures
- Design and implement effective exposure assessment strategies to assess the variability and magnitude of workplace exposures

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

- Demonstrate the use and limitations of accepted sampling and analysis methods for workplace hazards and use of quality control measures for exposure assessments in the workplace
- Explain the effects on the human body of exposures encountered in workplace settings
- Determine potential health hazards associated with processes, industries, and agents using observation skills and reviewing appropriate standards and literature in order to anticipate worker exposure and potential health risks
- Recognize and consider how ethical, social, structural, and cultural issues impact worker health
- Summarize exposure assessment data and communicate results and recommendations to diverse audiences.