### MS-EHS, Area of Emphasis: Individualized Track (Effective Autumn 2022)

# **Required Coursework**

		Credits		
DEOHS Common Core				
BIOST 511 (Medical Biometry I, Autumn)		4		
EPI 511 (Introduction to Epidemiology, Autumn)		4		
HSERV 579 (Structural Racism and Public Health, Autumn/Winter/Spring)		1		
ENV H 501 (Foundations of Environmental & Occupational Health, Autumn)		4		
ENV H 502 (Assessing & Managing Risks from Human Exposure to Env. Contaminants, Winter)		4		
ENV H 503 (Adverse Health Effects of Environmental and Occupational Toxicants, Autumn)		4		
ENV H 580 (Environmental and Occupational Health Sciences Seminar, Autumn/Winter/Spring)		2 x 1 = 2 <sup>1</sup>		
Area of Emphasis: Individualized T	rack			
Minimum of 10 credits of ENV H coursework <sup>2</sup>		≥10		
Elective Courses <sup>3</sup>		≥ 19		
Culminating Experience (Thesis)				
ENV H 583 (Thesis Proposal Preparation, Spring)		1		
ENV H 700 (Master's Thesis, All Quarters)		9		
	Total Minimum Credits	62		

- 1. Two quarters of ENV H 580 are required for a total of 2 credits.
- 2. Student works with their faculty adviser to identify ENV H courses appropriate to their interest and career goals.
- 3. 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 research thesis.

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# **Sample Schedule**

The schedule below includes <u>non-elective courses only</u>. Students work 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.).

	FIRST YEAR			
Autumn Quarter				
BIOST 511	Medical Biometry I	4 cr.		
EPI 511	Introduction to Epidemiology	4 cr.		
<b>ENV H 501</b>	Foundations of Environmental & Occupational Health	4 cr.		
ENV H 503	Adverse Health Effects of Environmental and Occupational Toxicants	4 cr.		
Non-Course	work Milestones: Work 1-on-1 with your Initial Faculty Mentor to identify possible thesis projects			
	Winter Quarter			
ENV H 502	Assessing & Managing Risks from Human Exposure to Env. Contaminants	4 cr.		
ENV H 580	Environmental and Occupational Health Seminar	1 cr.		
Non-Course	work Milestones: Continue working with your Faculty Mentor to identify possible thesis projects /			
Identify a Th	esis Adviser by the end of the quarter			
	Spring Quarter			
HSERV 579	Structural Racism and Public Health	1 cr.		
ENV H 580	Environmental and Occupational Health Seminar	1 cr.		
ENV H 583	Thesis Proposal Preparation	1 cr.		
ENV H 700	Master's Thesis	1 cr.		
Non-Course	work Milestones: Write thesis proposal and form Thesis Committee			
	Summer Quarter			
Non Course	work Milestones: Regin thesis project as outlined in thesis proposal			

Non-Coursework Milestones: Begin thesis project as outlined in thesis proposal

	SECOND YEAR				
Autumn Quarter					
ENV H 700	Master's Thesis	3 cr.			
Non-Course	Non-Coursework Milestones: Continue work on thesis project				
Winter Quarter					
ENV H 700	Master's Thesis	2 cr.			
Non-Course	Non-Coursework Milestones: Continue work on thesis project				
Spring Quarter					
ENV H 700	Master's Thesis	3 cr.			

Non-Coursework Milestones: Present at Graduate Student Research Day / Defend and submit thesis

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## **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**

- 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
- Formulate hypotheses and design experiments to test such hypotheses aimed at advancing knowledge in environment and health sciences