

## 2024-25 PROGRAM GUIDE: Master of Public Health, Environmental Systems & Human Health

Information in this document is updated annually. Please refer to the document for the year you entered the program. Student resources, policies, and procedures applicable to all School of Public Health graduate students can be found on the SPH website, [www.ohsu-psu-sph.org](http://www.ohsu-psu-sph.org).

### Overview

Director: Tawnya Peterson, Ph.D. ([petertaw@ohsu.edu](mailto:petertaw@ohsu.edu))

<https://ohsu-psu-sph.org/degree-programs/master-public-health/mph-eshh/>

The MPH in Environmental Systems & Human Health (ESHH) program offers public health training for students who want to investigate and remediate environmental impacts on human health. Believing that a healthy environment is a cornerstone of preventive medicine, the goal of the program is to produce graduates who will be equipped to analyze and address relationships between human activities, the environment, and human health. The program emphases include environmental (e.g., climate) change and its effect on human health and well-being, environmental pathogens, environmental transport, fate and remediation of chemical contaminants, food web bioaccumulation, wastewater treatment, environmental risk assessment and communication, and social justice issues. Within the program, special attention will be given to mediating and modifying the effects of environmental disruptions on the health of vulnerable populations in a culturally competent, ethical manner.

### Program Competencies

- Communicate the relationship between environmental systems and human health, particularly in response to a changing climate.
- Analyze how environmental hazards (chemical, physical and biological) interact with natural and built systems, including the mechanisms of their adverse effects on humans.
- Assess and interpret relevant literature in the area of public health and environmental hazards.
- Evaluate the risk of environmental exposures to human populations through the incorporation of exposure, toxicological, and other relevant data into risk assessment methodology.
- Discuss how federal and state regulatory programs, guidelines and authorities impact environmental and occupational health issues.
- Apply ethical principles that govern the practice of environmental risk assessment, management, and communication.
- Specify approaches for assessing, preventing and controlling environmental and occupational hazards that pose risks to human health and safety.
- Integrate, synthesize and apply theory to practice in the context of a research study, policy consequences, or environmental exposure.
- Explain the general mechanisms of toxicity in eliciting a human health effect in response to various environmental and occupational exposures.

**MPH Environmental Systems & Human Health Program of Study (60 credits)**

<b>Course number</b>	<b>Course title</b>	<b>Credits</b>
<b><i>Core Required Coursework (17 credits)</i></b>		
BSTA 525	Intro to Biostats	4
EPI 512	Epidemiology I	4
ESHH 511	Concepts of Environmental Health	3
HSMP 574	Health Systems Organization	3
PHE 512	Principles of Health Behavior	3
<b><i>Program Required Coursework (26 credits)</i></b>		
ESHH 515 <u>OR</u> CPH 522	Geographical Info Systems for Public Health Communicating Public Health Data	3
ESHH 519	Environmental Health in a Changing World	3
ESHH 521	Principles of Occupational Health	4
ESHH 529	Environmental Toxicology & Risk Assessment	4
ESHH 530	Environmental & Occupational Health Chemistry	4
ESHH 532	Ecological Public Health	3
HSMP 573	Values and Ethics in Health	3
UNI 504	Qualitative Methods for Health Professionals	2
<b><i>Culminating Experience (5 cr.)</i></b>		
ESHH 509 PE	Practice Experience	4
ESHH 502 IP	Integrative Project	1
<b><i>Commonly Taken Electives (12 credits)</i></b>		
ESHH 510	Environmental Law for Public Health	3
ESHH 512	Global & Planetary Health Concepts	3
EPI 513	Epidemiology II (Methods)	4
PHE 511	Foundations of Public Health	3
PHE 517	Community Organizing	3
PHE 519	Intro to the Etiology of Disease	3
PHE 541	Media Advocacy & Public Health	3
ESM 552	Environmental Regulation and Non-Regulatory Approaches	3
ESM 587	Environmental Justice: Theory and Implication	3
ESM 588	Environmental Sustainability	3
GEOG 546	Water Resource Management	3
GEOG 567	Community Resilience in Coupled Social-Ecological Systems	3
PSY 550	Occupational Health Psychology	3

	YEAR 1 (Full time) (31 cr.)			YEAR 2 (Full time) (29 cr.)		
	Courses (cr)		Student Actions	Courses (cr)		Student Actions
<b>Fall</b>	ESHH 511 (3)	Concepts of Env Health	<ul style="list-style-type: none"> <li>Attend Fall Welcome</li> <li>Meet with Faculty Advisor</li> </ul>	ESHH 529 (4)	Env Toxicol & Risk Assesment	<ul style="list-style-type: none"> <li>Attend Fall Welcome</li> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator</li> </ul>
	EPI 512 (4)	Epidemiology I		HSMP 573 (3)	Value & Ethics in Hlth	
	ESHH 519 (3)	Env Health in a Changing World		ESHH 515** (3) -OR- Elective	GIS for Public Health OR Elective	
<b>Winter</b>	BSTA 525 (4)	Intro to Biostatistics	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> </ul>	ESHH 532 (3)	Ecological Public Health	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator</li> <li>Apply to graduate</li> </ul>
	PHE 512 (3)	Principles of Health Behavior		ESHH 509PE (2)	Practice Experience	
	ESHH 521 (4)	Principles of Occupational Health		UNI 504 (2) Elective	Qualitative Methods Elective	
<b>Spring</b>	ESHH 530 (4)	Environ & Occ Health Chem	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator   begin PE planning</li> <li>Attend some PE presentations</li> </ul>	ESHH 509PE (2)	Practice Experience	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator</li> </ul>
	HSMP 574 (3)	Health Systems Org		CPH 522** (3) -- OR -- Elective	Communicating Public Hlth Data OR Optional Elective	
	ELECTIVE (3-4)	Elective		ESHH 502IP (1) ELECTIVE (3-4)	Integrative Project Elective	
Summer	<i>Summer Offerings:</i>		<ul style="list-style-type: none"> <li>Reflect and revise plan of study, if needed</li> </ul>	<i>Summer Offerings:</i>		Complete any credits needed to meet degree requirements
	BSTA 525 (4)	Intro to Biostats		BSTA 525 (4)	Intro to Biostats	
	EPI 512 (4)	Epidemiology I		EPI 512 (4)	Epidemiology I	
	HSMP 573 (3)	Values & Ethics in Health		HSMP 573 (3)	Values & Ethics in Health	
	HSMP 574 (3)	Health Systems Organization		HSMP 574 (3)	Health Systems Organization	

\*\*ESHH students must take *either* ESHH 515 **OR** CPH 522

	YEAR 1 (Part-time) – 22 cr.		YEAR 2 (Part-time) – 20 cr.	
	Courses (cr)	Student Actions	Courses (cr)	Student Actions
<b>FALL</b>	ESHH 511 (3) Concepts of Env Health	<ul style="list-style-type: none"> <li>Attend Fall Welcome</li> <li>Meet with Faculty Advisor</li> </ul>	ESHH 519 (3) Env Health Chang Wrlld	<ul style="list-style-type: none"> <li>Attend Fall Welcome</li> <li>Meet with Faculty Advisor</li> </ul>
	EPI 512 (4) Epidemiology I		HSMP 574 (3) Health Systems Org	
<b>WINTER</b>	BSTA 525 (4) Intro to Biostatistics	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> </ul>	ESHH 532 (3) Ecological Public Health	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator</li> </ul>
	ESHH 521 (4) Principles of Occ Health		HSMP 573 (3) Values & Ethics in Hlth	
<b>SPRING</b>	ESHH 530 (4) Environ & Occ Health Chem	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> </ul>	Elective	<ul style="list-style-type: none"> <li>Meet with Faculty Advisor</li> <li>Meet with Practice Experience Coordinator</li> <li>Prepare for PE</li> </ul>
	PHE 512 (3) Principles Hlth Behavior		CPH 522** (3) Communicating Public Hlth Data	
<b>SUMMER</b>	UNI 504 (2) Qualitative Methods	<ul style="list-style-type: none"> <li>Reflect and revise plan of study, if needed</li> </ul>	Summer Offerings:	
	BSTA 525 (4) Intro to Biostats EPI 512 (4) Epidemiology I HSMP 573 (3) Values & Ethics in Health HSMP 574 (3) Health Syst Organization		BSTA 525 (4) Intro to Biostats EPI 512 (4) Epidemiology I HSMP 573 (3) Values & Ethics Hlth HSMP 574 (3) Health Syst Organization	

\*\*ESHH students must take *either* ESHH 515 OR CPH 522

YEAR 3 (Part time) – 18 cr.		
	Courses (cr)	Student Actions
<b>FALL</b>	ESHH 529 (4) Env Toxicol & Risk Assess ESHH 515** (3) GIS for Public Health -OR- Elective	<ul style="list-style-type: none"> <li>• Attend Fall Welcome</li> <li>• Meet with Faculty Advisor</li> <li>• Meet with Practice Experience Coordinator/work on PE</li> </ul>
<b>WINTER</b>	ESHH 509PE (2) Practice Experience Elective Elective Elective Elective Elective	<ul style="list-style-type: none"> <li>• Meet with Faculty Advisor</li> <li>• Apply to graduate</li> <li>• Meet with Practice Experience Coordinator/work on PE</li> </ul>
<b>SPRING</b>	ESHH 509PE (2) Practice Experience ESHH 502IP (1) Integrative Project	<ul style="list-style-type: none"> <li>• Meet with Faculty Advisor</li> </ul>
<b>SUMMER</b>	<i>Summer Offerings:</i>  BSTA 525 (4) Intro to Biostats EPI 512 (4) Epidemiology I HSMP 573 (3) Values & Ethics in Health HSMP 574 (3) Health Systems Organization	<ul style="list-style-type: none"> <li>• Complete any credits needed to complete degree</li> </ul>

## **Graduate Student Resources, Policies, and Procedures**

[Policies and procedures](https://ohsu-psu-sph.org/graduate-students-policies-and-procedures/) applicable to all School of Public Health graduate students can be found on the SPH website at <https://ohsu-psu-sph.org/graduate-students-policies-and-procedures/>. Please review the student policies and procedures listed there, including but not limited to the following sections:

- Advising
- Academic Standing
- Academic Dismissal
- Academic Dishonesty
- Codes of Conduct
- Educational Records Privacy
- Minimum Course Grade Requirements
- Recognition of Prior Earned Credit
- Course Waiver Policy
- Incomplete Coursework
- Course Approvals (Electives)
- Independent Study
- International Travel and Coursework
- Continuous Enrollment
- Leave of Absence
- Withdrawal Policy
- Time Limits
- Grievance Resolution
- Degree and Certificate Conferral

[Academic resources](#) and [student support services](#) available to SPH graduate students are listed on the SPH website, [www.ohsu-psu-sph.org](http://www.ohsu-psu-sph.org). Please review the resources listed there.