## Degree Requirements and Competencies for the MPH in Occupational and Environmental Medicine

*(effective summer 2022)*

### Required Coursework

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 511</td>
<td><em>(Foundations of Public Health, Autumn)</em></td>
<td>3</td>
</tr>
<tr>
<td>PHI 512</td>
<td><em>(Analytical Skills for Public Health I, Autumn)</em></td>
<td>7</td>
</tr>
<tr>
<td>PHI 513</td>
<td><em>(Analytical Skills for Public Health II, Winter)</em></td>
<td>3</td>
</tr>
<tr>
<td>PHI 514</td>
<td><em>(Determinants of Health, Winter)</em></td>
<td>3</td>
</tr>
<tr>
<td>PHI 515</td>
<td><em>(Implementing Public Health Interventions, Spring)</em></td>
<td>4</td>
</tr>
<tr>
<td>PHI 516</td>
<td><em>(Public Health Practice, Spring)</em></td>
<td>3</td>
</tr>
<tr>
<td>ENV H 599</td>
<td><em>(Field Studies/Practicum)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 502</td>
<td><em>(Assessing &amp; Managing Risks from Human Exposure to Environmental Contaminants, Winter)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 503</td>
<td><em>(Adverse Health Effects of Environmental and Occupational Toxicants, Autumn)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 580</td>
<td><em>(Environmental and Occupational Health Sciences Seminar, Autumn/Winter/Spring)</em></td>
<td>1</td>
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</tbody>
</table>

### DEOHS Common Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENV H 512</td>
<td><em>(Medical Biometry II, Winter)</em></td>
<td>4</td>
</tr>
<tr>
<td>BIOST 512</td>
<td><em>(Medical Biometry III, Spring)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 596</td>
<td><em>(Current Issues in Environmental and Occupational Medicine, Spring)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 550</td>
<td><em>(Occupational and Environmental Disease, Autumn/Spring)</em></td>
<td>4</td>
</tr>
<tr>
<td>ENV H 564</td>
<td><em>(Recognition of Health and Safety Problems in Industry, Autumn)</em></td>
<td>2</td>
</tr>
<tr>
<td>ENV H 596</td>
<td><em>(Current Issues in Environmental and Occupational Medicine, Summer)</em></td>
<td>2</td>
</tr>
<tr>
<td>ENV H 597</td>
<td><em>(Case Studies in Environmental and Occupational Health, Autumn/Winter/Spring)</em></td>
<td>2</td>
</tr>
</tbody>
</table>

### Degree Specific Course Requirements

Choose one of the following:

- EPI 513 *(Epidemiological Methods II, Winter)*
- ENV H 597 *(Case Studies in Environmental and Occupational Health, Autumn/Winter/Spring)*
- ENV H 550 *(Occupational and Environmental Disease, Autumn/Spring)*
- ENV H 564 *(Recognition of Health and Safety Problems in Industry, Autumn)*
- ENV H 596 *(Current Issues in Environmental and Occupational Medicine, Summer)*
- ENV H 597 *(Case Studies in Environmental and Occupational Health, Autumn/Winter/Spring)*

**Elective Courses**

- *varies*

### Culminating Experience

For students who choose to complete a **RESEARCH THESIS**:

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENV H 583</td>
<td><em>(Thesis Proposal Preparation, Spring)</em></td>
<td>1</td>
</tr>
<tr>
<td>ENV H 700</td>
<td><em>(Master's Thesis, All Quarters)</em></td>
<td>9</td>
</tr>
</tbody>
</table>

For students who choose to complete a **CAPSTONE PROJECT**:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENV H 598</td>
<td><em>(Degree Program Project/Portfolio, All Quarters)</em></td>
<td>9</td>
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</table>

| Total Minimum Credits | 68 |

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*Department of Environmental & Occupational Health Sciences, School of Public Health, University of Washington • Rev. 3/22/21*
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1. ENV H 596 is a 2-credit course in summer quarter and a 4-credit course in spring. Students choosing this option take both the spring and summer offerings for a total of 6 credits.
2. ENV H 597 is a 1-credit class. Students choosing this option take four quarters in addition to the required two quarters for a total of 6 quarters/credits.
3. Students work with their faculty adviser to identify an additional course 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 practicum as part of the MPH common core and either a research thesis or a capstone project as a culminating experience.

**Degree Competencies**

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

**School of Public Health -- All MPH Students**

**Profession & Science of Public Health:**

- 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

**Factors Related to Human Health:**

- 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)

**Evidence-based Approaches to Public Health:**

- Apply epidemiological methods to the breadth of settings and situations in public health practice
- Select quantitative and qualitative data collection methods appropriate for a given public health context
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- Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
- Interpret results of data analysis for public health research, policy or practice

**Public Health & Health Care Systems:**
- Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings
- Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels

**Planning & Management to Promote Health:**
- Assess population needs, assets and capacities that affect communities' health
- Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
- Design a population-based policy, program, project or intervention
- Explain basic principles and tools of budget and resource management
- Select methods to evaluate public health programs

**Policy in Public Health:**
- Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
- Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
- Advocate for political, social or economic policies and programs that will improve health in diverse populations
- Evaluate policies for their impact on public health and health equity

**Leadership:**
- Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making
- Apply negotiation and mediation skills to address organizational or community challenges

**Communication:**
- Select communication strategies for different audiences and sectors
- Communicate audience-appropriate public health content, both in writing and through oral presentation
- Describe the importance of cultural competence in communicating public health content

**Interprofessional Practice:**
- Perform effectively on interprofessional teams

**Systems Thinking:**
- Apply systems thinking tools to a public health issue

**SPH - All Student Competency**
- Recognize the means by which social inequities and racism, generated by power and privilege, undermine health
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**DEOHS – All Graduate Student Competencies**

- 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
- **For students choosing the THESIS option only:** Formulate hypotheses and design experiments to test such hypotheses aimed at advancing knowledge in environment and health sciences *(for students choosing the thesis option only)*
- **For student choosing the CAPSTONE option only:** Identify a current, practical problem in environmental health sciences and collect, integrate and analyze relevant information to produce practical solutions.

**DEOHS – Degree Specific Competencies**

- Evaluate injuries and illnesses that are occupationally or environmentally related within the occupational and environmental health regulatory environment and systems
- Apply evidence-based approaches to managing occupational and environmental injuries and diseases
- Recognize, evaluate, and treat human exposures to physical, chemical, or biological hazards at work or in the general environment
- Integrate aspects of surveillance and principles of exposure assessment into primary and secondary prevention of occupational and environmental disease
- Describe occupational health disparities and formulate a plan to mitigate individual and organizational factors in the workplace in order to optimize the health of the worker.