

COLLEGE OF PUBLIC HEALTH AND HUMAN SCIENCES

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# Environmental and Occupational Health MPH Handbook 2015-2016



**Oregon State**  
UNIVERSITY

# **MPH Environmental and Occupational Health Option**

## **Student Handbook**

**2015-2016**

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Welcome to the College of Public Health and Human Sciences. Built on a strong foundation of public health – biostatistics, epidemiology, social and behavioral sciences, health policy and management, and environmental health sciences – the College takes a holistic approach to disease prevention and health promotion.

### **Our College Vision**

To ensure lifelong health and well-being for every person, every family, every community.

### **Our College Mission**

Inspired by our mission as a leading land-grant university, we create synergy in teaching, research and outreach to develop the next generation of globally minded public health and human sciences professionals. Through interdisciplinary research and innovative curricula, we advance knowledge, policies and practices that improve population health in communities across Oregon and beyond.

### **Our College Values**

We share the values that guide Oregon State University: Accountability, Diversity, Respect, Responsibility and Truth. To these values, we add our dedication to:

- **Health:** We are committed to advancing lifelong health and well-being for all.
- **Care and Compassion:** With compassion and understanding, we commit to caring for ourselves and others.
- **Innovation:** We embrace innovative approaches to addressing challenges and opportunities.
- **Continuous Improvement:** We continually strive toward high standards by optimizing individual and collective strengths.
- **Cooperation and Collaboration:** We promote a collegial learning and work environment that encourages cooperation, collaboration and active participation.

The Environmental and Occupational Health program focuses on understanding the impact of environmental and occupational hazards on human health and society, as well as, developing effective interventions that will control and prevent exposure to hazards.

In our program, we strive to excel in teaching, research and outreach in environmental and occupational health. As an applied program, our faculty conducts novel interdisciplinary research and produces graduates capable of improving human health who adhere to principles of sustainable development.

The foundation of our program is exposure assessment, toxicology, risk characterization, and management strategies. Our strength is our interdisciplinary approach to solving domestic and international problems in occupational health and safety, as well as, environmental health. Areas of distinction include:

- Occupational safety and health
- Environmental epidemiology
- International environmental and occupational health
- Disaster research, response and management
- Science communication and research translation

In addition to the University and College values, the Environmental and Occupational Health program adds:

- We are committed to innovative teaching, research and outreach.
- We use best available evidence to prevent and manage hazardous exposures.
- We are dedicated to primary prevention strategies.
- We are committed to ethical behavior in research and professional service.
- We believe that collaboration across disciplines is essential to carrying out our mission.
- We recognize the rights of all individuals to live and work in a safe and healthful environment.
- We promote sustainable development in private and public sector organizations.

**IMPORTANT:** In addition to this handbook, MPH students must reference the MPH Student General Handbook for information pertaining to policies which apply to ALL students.

**GRADUATE SCHOOL:** As an MPH student, you must also follow the guidelines and policies of OSU's Graduate School. You will obtain your Program of Study form from the Graduate School. Additionally, the Graduate School offers many activities and enrichment opportunities to further your professional development. (<http://gradschool.oregonstate.edu/>)

## **Environmental and Occupational Health Specific Requirements**

### **A. Option Competencies**

Upon satisfactory completion of the Master of Public Health in Environmental and Occupational Health, students should be able to:

- A. Identify and assess the major environmental and occupational health & safety hazards that impact workers and the general population;
- B. Communicate appropriate strategies for preventing and controlling environmental and occupational health & safety hazards;
- C. Conduct environmental and occupational health & safety applied research;
- D. Analyze the relationship between organizations that guide, regulate, and finance environmental and occupational health & safety practices;
- E. Apply environmental and occupational health & safety knowledge and skills in practical settings; and
- F. Adhere to established environmental and occupational health & safety professional practices and ethical standards.

### **B. Degree Requirements**

To complete the MPH degree in the Environmental and Occupational Health option, students must have a total of at least 61 approved credit hours and successfully complete a final oral exam. These credits include:

- |   |    |
|---|----|
| • Public Health Core Courses                      | 17 |
| • Required Option Courses                         | 19 |
| • Environmental and Occupational Health Electives | 18 |
| • Field Experience (Internship)                   | 6  |

### C. Suggested Course Sequence

Course #	Title	Recommended Sequence	Credits
<b>Public Health Required Core Courses</b>			<b>17</b>
H512	Intro to Environmental & Occupational Health Sciences	Fall / Yr1	3
H524	Introduction to Biostatistics	Fall / Yr1	4
H525	Principles of Epidemiology	Fall / Yr1	4
H533	Health Systems Organization	Fall / Yr2	3
H571	Principles of Health Behavior	Fall / Yr2	3
<b>Required Option Courses</b>			<b>19</b>
H548	Public Health Toxicology	Winter / Yr1	3
H543	Exposure Science I	Winter / Yr1	3
H546	Exposure Science II: Sampling and Measurement	Spring / Yr1	3
H544	Environmental and Occupational Epidemiology	Spring / Yr1	3
H583	Environmental and Occupational Health and Safety Management	Winter / Yr 2	3
H542	Environmental and Occupational Health Risk Assessment	Winter / Yr 2	3
GRAD520	Responsible Conduct of Research	Fall / Yr 1	1
<b>Electives (select 5)</b>			<b>18</b>
<i>Other graduate courses can also be selected as electives with the permission of your advisor – see suggested areas of distinction</i>			
H540	Water and Human Health	Spring	3
H541	Air Quality and Human Health	Fall	3
H545	Occupational Health	Spring	3
H547	GIS and Public Health	Winter	3
H552	Disaster Epidemiology	Fall / Yr 2	3
H588*	Applied Occupational Safety and Health	Winter / Yr 2	3
H589	Emergency and Disaster Management	Fall / Yr 2	3
H592*	Spatial Epidemiology	Spring	3
H594*	Applied Ergonomics	Winter / Yr 1	3
H595	Design for Environment, Safety & Health	Winter	3
<b>Field Experience</b>			<b>6</b>
H510	Internship/Field Experience	Yr 2	6
<b>Final Oral Exam</b>			<b>Pass</b>
	Final Oral Exam	Spring / Yr 2	
* Offered every other year			

Students have the ability to select 18 credits of electives to develop an area of specialization within the field of environmental and occupational health. Students have the flexibility of selecting electives from any graduate level course offered and should work with their faculty advisor to develop their area of specialization. The following elective lists are suggestions for courses that would provide specializations in the following areas of distinction:

Occupational Health and Safety

- H545 Occupational Health (3 credits)
- H588 Applied Occupational Safety and Health (3 credits)
- H594 Applied Ergonomics (3 credits)
- H595 Design for Environment, Safety and Health (3 credits)
- MP582 Applied Radiation Safety (4 credits)

Environmental Epidemiology

- H592 Spatial Epidemiology (3 credits)
- H547 Public Health GIS (3 credits)
- H526 Epidemiological Methods (3 credits)
- H599 Applied Epidemiological Methods (3 credits)
- H580 Multiple Linear Regression & Analysis of Time Event Data (4 credits)
- H581 Generalized Linear Models and Categorical Data Analysis (4 credits)
- H599 Epidemiology for Public Health Practice (3 credits)

Environmental Health

- H541 Air Quality and Human Health (3 credits)
- H540 Water and Health (3 credits)
- H547 Public Health GIS (3 credits)
- TOX529 Toxic Substances in Food (3 credits)
- H562 Infectious Disease Epidemiology (3 credits)
- FST 521 Food Law (3 credits)

International Environmental & Occupational Health

- H529 International Health (3 credits)
- H528 Global Health Issues (3 credits)
- H526 Epidemiological Methods (3 credits)
- H541 Air Quality and Human Health (3 credits)
- H540 Water and Health (3 credits)
- H545 Occupational Health (3 credits)
- H595 Design for Environment, Safety and Health (3 credits)

Disaster Research

- H589 Emergency and Disaster Management (3 credits)
- H552 Disaster Epidemiology (3 credits)
- H540 Water and Human Health (3 credits)
- H560 Public Health Surveillance (3 credits)
- H562 Infectious Disease Epidemiology (3 credits)

## **D. Program of Study**

As a graduate student, you must file a Program of Study with the Graduate School. The Program of Study is developed under the guidance of the advisor. The form is available online in the Graduate School:

[http://oregonstate.edu/dept/grad\\_school/forms.php](http://oregonstate.edu/dept/grad_school/forms.php).

By the end of your first term, meet with your advisor to plan your elective courses to be taken in subsequent terms. At least 15 weeks before your Final Oral Examination, complete your entire Program of Study, and have it approved/signed by your advisor and School Co-Director before submitting to the Graduate School.

## **E. Field Experience (H510)**

The field experience is a 200-hour professional internship where knowledge from coursework is applied in a real-world setting. This is your opportunity to apply your existing skills and learn new ones by working within the field of environmental and occupational health.

The MPH Internship Coordinator has a database that contains data on field experience sites utilized by students. The database contains information about different opportunities including: agency background information, contact information, specialty options(s) served, and the number of students placed each year.

The internship planning process is described in details at:

<http://health.oregonstate.edu/internships>

Faith Vawter is the MPH Internship Coordinator (Telephone: 541-737-4891 Email: [Faith.Vawter@oregonstate.edu](mailto:Faith.Vawter@oregonstate.edu)). You will work with her and your advisor as you prepare for your internship.

### *MPH Program Minimum Standards for Internship*

In addition to meeting the professional experience criteria, all MPH internship experiences must meet the following:

- Preceptor experience: The preceptor may not be program faculty member or advisor. Preceptors must have public health credentials or appropriate health related credentials and experience to provide appropriate

mentorship/supervision in your learning experience. All site preceptors and sites will be assessed on a case-by-case basis.

- Competency-based: The internship must meet option and student-specified competencies. Competencies and scope of the internship scope are pre-approved by advisor and MPH Internship Coordinator. Competency mastery is evaluated by both student and preceptor.
- Community or population focus: The internship experience is a professional experience within a public or private sector organization that can influence workplace, community, or population health (e.g., public health agency, health care delivery, reimbursement, community organizing, health voluntary, population-based research, worksite setting, regulatory agency).
- Duration: Minimum of 200 practice hours (6 credit hours)

## **F. Option Minimum Standards for Internship**

In addition to meeting the MPH Program Minimum Standards for internships, students in the Environmental and Occupational Health option must meet the following requirements:

- Students will have completed all or most of the required courses before beginning an internship.
- Students must complete an Application and Learning Contract, Advisor Approval Form, Internship Coordinator Signature Form, Preceptor Signature Form, and Request for "To Be Arranged" Course Form which must be received by the MPH Internship Coordinator prior to the start of internship.

As part of their internship application, students work with their advisor to:

- Develop appropriate learning competencies based on MPH and option competencies for the internship and document them in Application and Learning Contract,
- Describe how their area of emphasis, internship, and career objectives are connected, and
- Seek placements in public and/or private sector organizations with qualified preceptors in the area of environmental health and/or occupational health & safety.

Students must maintain an ongoing internship/organizational experience journal, submit bi-weekly progress reports, a final summary of their work in

the practice setting, and an evaluation of the internship site. These reports must be submitted to the MPH Internship Coordinator.

Preceptors must evaluate the degree to which students accomplished the stated individual and option learning competencies using a Likert-scale instrument provided in the MPH Student General Handbook. This evaluation form is submitted to MPH Internship Coordinator and the student's faculty advisor.

### **G. Culminating Experience - Final Oral Presentation and Exam**

Upon completion of all required coursework and the internship experience, MPH students must schedule a final oral exam. The final oral exam includes a presentation and oral exam which is administered by the student's committee.

The student's Program of Study must be filed with the Graduate School and all required coursework must be completed prior to scheduling the final oral presentation.

Students must receive approval to schedule their final oral presentation from their academic advisors. Any deviations from policy must be approved by the Environmental and Occupational Health Program Coordinator.

All Environmental and Occupational Health MPH students are expected to attend the oral presentations of their peers.

#### *Purpose*

The Graduate School at Oregon State University requires all students in a graduate degree-seeking program to participate in a final oral examination. The purpose of the oral examination is to provide students with an opportunity to integrate their educational experiences and draw from coursework and the internship to respond to substantive, methodological, and theory-based questions. In conjunction with the internship, the exam is designed provide the student an opportunity to assess their mastery of the option competencies and understanding of Environmental and Occupational Health concepts and principals.

### *Committee*

The exam committee will be comprised of three faculty members, including the student's advisor and two additional members who are faculty of the College or have Graduate Faculty Status in a Public Health discipline. Students should discuss the procedure for creating committees with their faculty advisor or the Program Coordinator. Students must invite faculty to be on their committee well in advance of scheduling their final oral presentation.

### *Final Report*

Students are required to provide all members of their faculty committee with a copy of their Final Report at least one week in advance of the scheduled oral presentation/exam date. The information included in their Final Report will be the basis for the student's oral presentation and examination.

Students are encouraged to work with their advisor as they develop their Environmental and Occupational Health Final Report.

The Final Report should consist of three parts:

- i)* The internship project – this document describes the significance of the project undertaken during the internship, the methodological approach applied to the project, any results/conclusion from the project, and potential future directions;
- ii)* Appendix A – a concise summary of how the internship met the learning objectives developed for the students' internship;
- iii)* Appendix B – a concise summary of how the internship and all coursework met the option competencies.

Appendix A and B build upon the reports submitted to the MPH Internship Coordinator.

### *Presentation/Oral Exam Format*

Student will give a 30-40 minute oral presentation of their internship experience. This presentation should focus on the project that undertaken

during their internship. The presentation is open to the public and will be followed by 15 minutes of question and answer by the audience.

After the audience has finished asking questions, all visitors will be asked to leave and the oral examination will continue with only the committee members and the student present. Questions will focus on the methodology used by the student in the internship, their Program of Study, and how their experience relates to the option competencies.

The entire oral presentation and exam will last approximately 2 hours.

### *Assigning Grade*

Students will be assigned a "pass" or "fail" grade. A grade of "pass" means that the student has responded to the exam questions satisfactorily. If the student receives a grade of "fail" on their examination, faculty must provide specific comments, feedback, and suggestions for improvement. Failure of the examination may result in additional coursework, remedial assignments or readings, prior to retaking the examination. Students will be allowed \*one\* retake of the examination, which will include new questions and follow the same procedures as above. The examination may be retaken no sooner than 10 weeks (one full academic term) after the date of the failed exam.

If the student fails the second oral examination, the student will be terminated from the MPH program.

## Environmental & Occupational Health MPH Student Advising Sheet

Student Name \_\_\_\_\_ Today's Date \_\_\_\_\_

Term Matriculated \_\_\_\_\_ Expected Graduation \_\_\_\_\_

Student ID \_\_\_\_\_ ONID e-mail \_\_\_\_\_

MPH Core Requirements (17)	Credits	Term	Grade
H 512 Introduction to Environmental & Occupational Health Sciences	3		
H 524 Introduction to Biostatistics	4		
H 525 Principles of Epidemiology	4		
H 533 Health Systems Organization	3		
H 571 Principles of Health Behavior	3		
Option Required Courses (19)	Credits	Term	Grade
H548 Public Health Toxicology	3		
H543 Exposure Science I	3		
H546 Exposure Science II: Sampling and Measurement	3		
H544 Environmental and Occupational Epidemiology	3		
H583 Environmental and Occupational Health and Safety Management	3		
H542 Environmental and Occupational Health Risk Assessment	3		
GRAD520 Responsible Conduct of Research	1		
Option Electives (18)	Credits	Term	Grade
Field Experience (6)	Credits	Term	Grade
H 510 Internship (Field Experience)	6		

Total Credits \_\_\_\_\_

Please use the space below to note any special arrangements where course substitutes have been approved: