

OCCUPATIONAL AND ENVIRONMENTAL HYGIENE, MASTER OF SCIENCE

The Master of Science (MS) in Occupational and Environmental Hygiene (OEH) program is a professional degree designed for students interested in developing or advancing professional careers in occupational and environmental risk assessment and management. This program is part of the Department's NIOSH-sponsored Education and Research Center in Occupational Safety and Health. Graduates of the program are employed in consulting, private industry and/or government, and they are also prepared to pursue doctoral studies in environmental health sciences. The program may be undertaken on a full-time or part-time/online basis and both options confer the same degree. Students interested in pursuing the part-time/online program should refer to Engineering for Professionals for more information.

The OEH program has four broad educational objectives for students:

1. Recognize, evaluate, and control factors in the workplace and the environment that may cause illness, injury, or impairment;
2. Develop functional skills in five core areas identified for professional programs (biostatistics, epidemiology, administration, education/behavioral sciences, and environmental health) specific to the practice of occupational and environmental hygiene.
3. Prepare for an immediate career through comprehensive education and training; and
4. Provide a breadth of professional knowledge needed to pursue further education in environmental health.

For students particularly interested in careers in occupational hygiene the program is accredited by the Applied and Natural Science Accreditation Commission (ANSAC) of the Accreditation Board for Engineering and Technology (ABET), and is designed to prepare students for the Certified Industrial Hygienist (CIH) examination administered by the American Board of Industrial Hygiene (ABIH). Training in the program covers principles of risk assessment and management in the workplace and in the general environment. Coursework includes toxicology, epidemiology, biostatistics, occupational health, occupational and environmental hygiene, air pollution, environmental sampling, exposure assessment, and program management, as well as risk assessment, risk management and risk communication.

Students Seeking Additional Research/Internship Opportunities

Additional laboratory and internship opportunities are assessed on a case-by-case basis and should be discussed with your advisor before starting any work. Students who would like credit for working in a faculty lab can register for 182.845. Students who would like credit for additional internship hours outside of JHU can enroll in 182.810. This is applicable both for domestic students and international students who need to meet visa requirements.

The curriculum for Occupational and Environmental Hygiene is housed at Bloomberg School of Public Health. Please note that the school schedules courses by term rather than semester.

First Year Requirements

Code	Title	Credits
First Term		
PH.140.621	Statistical Methods in Public Health I	4
PH.340.721	Epidemiologic Inference in Public Health I	5
PH.187.610	Public Health Toxicology	4
PH.188.680	Fundamentals of Occupational Health	3
PH.182.845	Ms Special Studies and Research	1
Second Term		
PH.140.622	Statistical Methods in Public Health II	4
PH.182.621	Introduction to Ergonomics	4
PH.182.614	Industrial Hygiene Laboratory	5
PH.182.625	Principles of Occupational and Environmental Hygiene	4
PH.182.845	Ms Special Studies and Research	1
Third Term		
PH.140.623	Statistical Methods in Public Health III	4
PH.182.623	Occupational Health Management	3
PH.182.613	Exposure Assessment Techniques for Health Risk Management	3
PH.182.845	Ms Special Studies and Research	1
Electives		
Fourth Term		
PH.180.628	Introduction To Environmental and Occupational Health Law	4
PH.305.615	Occupation Injury Prevention and Safety Policy and Practice	2
PH.188.681	Onsite Evaluation of Workplace and Occupational Health Programs	5
PH.182.845	Ms Special Studies and Research	1
Electives		

Summer - No registration required

Second Year Requirements

Code	Title	Credits
First Term (fifth term of program)		
PH.182.631	Principles of Occupational Safety	2
PH.182.615	Airborne Particles	4
PH.317.600	Introduction to the Risk Sciences and Public Policy	4
PH.182.810	MMs Field Placement	1
PH.182.850	Ms Essay	1
PH.182.845	Ms Special Studies and Research	1
Electives		
Second Term (sixth term of program)		
PH.182.637	Noise and Other Physical Agents in the Environment	4
PH.317.610	Risk Policy, Management and Communication	3
PH.182.850	Ms Essay	1 - 16
PH.182.845	Ms Special Studies and Research	1
Electives		

In addition, all students are required to complete 550.860.82 Academic & Research Ethics. This online course must be completed during the first term after matriculation.

Note: It is permissible to substitute the online versions of noted courses in place of the face-to-face versions. Online versions of courses are usually offered in different terms and may require rearrangement of other courses. Check with your adviser.

Internship or Independent Professional Project & Essay Requirement

As a requirement of the MS OEH program, each student must complete an independent professional project (IPP) and write a culminating essay that is presented in a formal seminar. The IPP can be completed as part of the internship experience for full-time students or in the context of a student's employment for part-time students. The essay is intended to serve as an integrating experience for the students. The content is based on an occupational or environmental health problem that is pertinent to the educational goals of the student and approved by the advisor. The essay is typically the product of an internship or employment experience. The essay represents a substantive application of professional technical skills through the process of collecting and summarizing data and reviewing appropriate literature. Where possible, students are encouraged to pursue projects that can lead to a publishable manuscript.

The full-time program includes a three-month internship. The internship is designed to provide professional experience tailored to the needs and interests of each student. During the internship, the student is expected to assume independent responsibility for a project, which is described in a culminating paper that serves as a review of the entire educational experience. Internship placements for full-time students are evaluated by asking field mentors to evaluate the student performance and each student to evaluate their internship. Students will register for 182.810 MS Field Placement.