
MHS IN OCCUPATIONAL AND ENVIRONMENTAL HYGIENE

The Master of Health Science (MHS) program in Occupational and Environmental Hygiene (formerly Industrial Hygiene) is designed for students interested in developing or advancing professional careers in occupational and environmental risk assessment and management. 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. For students particularly interested in careers in occupational hygiene, the program is accredited by the Accreditation Board for Engineering Technology (ABET) Applied Science Accreditation Commission and is designed to prepare students to pass the Certified Industrial Hygienist (CIH) examination given by the American Board of Industrial Hygiene. 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 techniques, exposure assessment and program management, as well as risk assessment, risk management and risk communication.

This program, which is part of the Department's NIOSH-sponsored Occupational Safety and Health Education and Research Center, requires one-and-a-half years to complete and 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. Results from the internship project and an overall review of the educational experience are also presented in a seminar for an audience of faculty and students.

Applicants for professional training should have a strong background in the physical, chemical and biological sciences, including college-level physics and

calculus. Admission is based on academic records, references, and a resumé of professional experience. In addition to the usual departmental requirements, the GRE is required of all applicants who do not already possess a graduate degree.

The MHS in Occupational and Environmental Hygiene program offers a part-time option, taking advantage of courses offered on-line, and during the School's Summer and Winter Institutes. The part-time program has the same requirements as the full-time option.

ESSAY

As a requirement of the OEH Program each student must write a culminating essay and present the information during a formal seminar presentation. The MHS 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 usually a work product that results from 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.

BA/MHS STUDENTS

Students entering the MHS in Occupational and Environmental Hygiene program by way of the BA/MHS are given the opportunity to transfer half of the credits for courses taken at BSPH while in the undergraduate Public Health major toward the 64 credit requirement for the MHS. The maximum number of credits transferable is 16. A form requesting transfer of credits and a copy of the undergraduate transcript must be submitted to the academic MHS Program Director before the end of the second term of the Program.

**Department of Environmental Health Sciences
MHS in Occupational and Environmental Hygiene
Core Curriculum Schedule – 1st Year**

First Term

140.621 Statistical Methods in Public Health I	TTh 10:30-11:50 *	4 units
182.840 Special Studies/Research EHE	TBA	1 unit
187.610 Public Health Toxicology	WF 3:30- 4:50	4 units
188.680 Fundamentals of Occupational Health	TTh 3:30-4:50	3 units
340.601 Principles of Epidemiology	MWF 8:30-9:20 *	<u>5 units</u>
		17 units

Second Term

140.622 Statistical Methods in Public Health II	TTh 10:30-11:50 *	4 units
182.621 Introduction to Ergonomics	F 8:30-11:50	4 units
182.625 Principles of Occupational & Environmental Hygiene	TTh 1:30-3:20	4 units
182.840 Special Studies/Research EHE	TBA	1 unit
183.631 Fundamentals of Human Physiology	MW 1:30-3:20	<u>4 units</u>
		17 units

Third Term

140.623 Statistical Methods in Public Health III	TTh 10:30-11:50 *	4 units
180.629 Environmental and Occupational Health Law & Policy	MW 10:00-11:50	4 units
182.614 Industrial Hygiene Laboratory	WF 1:30-4:50	5 units
182.623 Occupational Safety & Health Management	M 1:30-3:50	3 units
182.840 Special Studies/Research EHE	TBA	<u>1 unit</u>
		17 units

Fourth Term

182.615 Airborne Particles	F 9:30-11:50	3 units
182.622 Ventilation Controls	F 1:00-5:20	4 units
182.840 Special Studies/Research EHE	TBA	1 unit
188.681 Occupational Health	M 8:30-11:50 <i>and</i> W 8:30-4:50	5 units

Electives		<u>3 units</u>
		16 units

Summer Internship

No Registration Required.

* Check current schedule for lab times (<http://commprojects.jhsph.edu/courses>)

**Department of Environmental Health Sciences
MHS in Occupational and Environmental Hygiene
Core Curriculum Schedule – 2nd Year**

First Term (Fifth term of program)

182.631 Principles of Occupational Safety	F 1:30-3:20	2 units
182.840 Special Studies/Research EHE <i>or</i> Electives	TBA	10 units
182.840 Special Studies/Research EHE	TBA	1 unit
317.600 Introduction to the Risk Sciences & Public Policy	MW 5:00-6:30	<u>3 units</u>
		16 units

Second Term (Sixth term of program)

182.637 Noise and Other Physical Agents in the Environment	WF 1:30-3:20	4 units
182.840 Special Studies/Research EHE <i>or</i> Electives	TBA	10 units
182.840 Special Studies/Research EHE	TBA	1 unit
317.610 Risk Policy, Management and Communication	MW 5:00-6:30	<u>3 units</u>
		18 units

Suggested Electives for Occupational & Environmental Hygiene MHS Program

183.641 Health Effects of Indoor and Outdoor Air Pollution	TTh 1:30-2:50 4 th term	3 units
187.634 Molecular Dosimetry and Biomarkers	MWF 10:30-11:50 4 th term	4 units
305.610 Issues in Injury and Violence Prevention	MW 3:30-4:50 1 st term	2 units
340.618 Occupational Epidemiology	TTh 1:30-2:50 4 th term	4 units
410.613 Psychosocial Factors in Health and Illness	MW 1:30-3:20 2 nd term	4 units

In addition, all students are required to complete the Academic Ethics Module (on-line course), which is located at: <http://commprojects.jhsph.edu/academics/AcademicEthics.cfm>. This module should be completed within two terms of matriculation and must be completed before graduating.

Note: It is permissible to take the internet versions of Toxicology (187.610) and Physiology (183.631) in second and fourth terms, respectively, in place of the face-to-face versions offered in first and second terms. To do so, an eLearning account must be established and the online course “Introduction to Online Learning” must be completed prior to the start of the term in which the first internet course is taken. See the course catalog at <http://commprojects.jhsph.edu/courses> for available dates.