
experience. Applications for the BA/MHS degree are due by July 1 between the junior and senior year. Applicants may apply to the program during their senior year, but credit requirements for the MHS will be the same as for other students entering the MHS program. Please note that admitted students must complete the BA degree before formally enrolling in the Bloomberg School. Additional information about this program may be found in the Johns Hopkins University Krieger School of Arts and Sciences catalog.

MHS IN ENVIRONMENTAL HEALTH

The Master of Health Science (MHS) program in Environmental Health provides a generalized, systematic introduction to environmental health sciences. The program is intended for talented baccalaureate graduates who want a broad introduction to environmental studies to help identify long-term career goals and to provide a foundation for further education and training. The program is also designed for experienced government or industry employees who desire to become more qualified in environmental health issues and physicians seeking training in the environmental factors involved in disease and health. The MHS graduate will have competence in the following areas: basic biological mechanisms, toxicology, statistical evaluation of data, epidemiological studies in environmental health, legal and regulatory issues in environmental health, and occupational or environmental disease from either an engineering or medical perspective.

The student works with a faculty advisor to design a program that satisfies these requirements in the context of interests and career goals. Required coursework includes:

- environmental health
- toxicology
- physiology
- biostatistics
- epidemiology and
- risk sciences

Applicants are expected to submit the basic documents and test scores that the School requires for admission. Successful students usually have completed undergraduate biology and chemistry.

ESSAY

As a requirement of the MHS in Environmental Health degree program, the student must write an essay and present the information during a formal seminar. No written or oral comprehensive examination for the year's study is required for this degree. The MHS essay is intended to serve as an integrating experience for the students. The content is based on an environmental health problem that is pertinent to the educational goals of the student and approved by the advisor. Insofar as the topic allows, the essay must synthesize, to varying extents, information across the spectrum from basic toxicology through exposure assessment and policy.

The essay should represent a substantive application of analytic and technical skills in reviewing, exploring, and (possibly) solving a problem pertinent to environmental health. It is not a research paper or thesis, but rather an informative literature review/case study presentation of a topic of interest to the student. It should thus represent some synthesis of the background of the student with a new understanding of environmental health issues. The essay should be at least 30 pages in length, with at least 30 references. All students must register for three terms of 180.860, Special Studies MHS Essay, corresponding to the last three terms leading to completion of their program requirements—typically Terms II, III, and IV.

The student will meet with the advisor throughout the essay-writing process in order to ensure fulfillment of 180.860 essay requirements, as well as assure that the essay is properly prepared for presentation and final approval. Ultimately, the essay must be reviewed and approved by the advisor and one other faculty member or expert chosen by the student and approved by the advisor. The review is meant to screen for accuracy and completeness, not to critique the essay in great depth.

ESSAY TIMELINE

It is essential that the MHS essay be prepared in a timely manner, so that faculty can provide comments that can be incorporated into the final essay. During the year, certain milestones must be met in preparing the essay, as follows:

Mid-November

Draft outline to advisor/feedback provided

Mid-December

Outline approved

(required for satisfactory completion of Term II 180.860 Special Studies)

Mid-January

First draft of essay given to the advisor/feedback provided

Mid- to Late February

Second draft of essay given to advisor/feedback provided

Mid-March

"Final" version of essay given to advisor

(required for satisfactory completion of Term III 180.860 Special Studies)

Early April

Essay approved by advisor and sent to one other faculty or expert reader

Mid-April

Corrections to essay based on readers' comments

End of April (specific date will be announced)

Advisor and one other faculty or expert reader approve essay

(required for satisfactory completion of Term IV 180.860 Special Studies and for graduation)

Early May

Essay Presentation

Partial fulfillment of the MHS degree requirements for this program requires the student to make at least one presentation to an audience of faculty and students of the Department. This presentation will be based on the student's essay topic, and will typically be part of an MHS symposium held after completion of the written essay. This presentation will strengthen the student's skills in organizing and presenting specific

information. There are no exceptions to the submission of the essay or delivery of the presentation.

BA/MHS STUDENTS WAIVERS

Students entering the MHS in Environmental Health program by way of the BA/MHS are given the opportunity to request a waiver of the requirements for courses in Biostatistics and Epidemiology if, as undergraduates in the Public Health major, they completed Public Health Biostatistics and Introduction to Epidemiology and received a grade of B or better in each. A separate form must be submitted for each course for which a waiver is being requested. Forms are available online at <http://www.jhsph.edu/Dept/EHS/forms/Reqwaiverform.doc> or from the academic MHS Program Director. Requests must be submitted and approved prior to the start of the term in which the required course is offered.

Department of Environmental Health Sciences

MHS in Environmental Health

Core Curriculum Requirements

Required Courses

180.609 Principles of Environmental Health I	MW 1:30-3:20 1 st term	4 units
180.610 Principles of Environmental Health II	TTh 8:30-10:20 2 nd term	4 units
180.860 Special Studies MHS Essay	TBA 2 nd , 3 rd , 4 th terms	6 units
183.631 Fundamentals of Human Physiology	MW 1:30-3:20 2 nd term **	4 units
187.610 Public Health Toxicology	WF 3:30-4:50 1 st term **	4 units
317.600 Introduction to the Risk Sciences & Public Policy	MW 5:00-6:30 1 st term **	3 units
340.601 Principles of Epidemiology	MWF 8:30-9:20 1 st term *	5 units

A minimum of one introductory Biostatistics course
(Example: 140.611 or 140.621 or 140.615) varies

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

** Also offered via Internet

School Requirements

The following courses fulfill the School requirements for all research students. MHS in Environmental Health students are required to fulfill these requirements. In addition, all students are required to complete the Academic Ethics Module (on-line course), which is located at <http://apps1.jhsph.edu/academicethics/>. This module should be completed within two terms of matriculation and must be completed before graduating.

550.865 Public Health Perspectives on Research I	T 10:30-11:50 <i>OR</i> F 1:30-2:50 1 st term	1 unit
550.866 Public Health Perspectives on Research II	T 10:30-11:50 <i>OR</i> F 1:30-2:50 2 nd term	1 unit
306.665 Research Ethics and Integrity <i>OR</i>	TTh 1:30-2:50 3 rd term	3 units
550.860 Research Ethics	Internet 2 nd term	1 unit
Academic Ethics Module	Internet	

Other Coursework

The MHS in Environmental Health program is designed to maximize flexibility in a given student's curriculum. Accordingly, students develop their own course plan, in consultation with their advisor, who must ultimately approve the plan.

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.

Department of Environmental Health Sciences
MHS in Environmental Health
Core Curriculum Schedule – Typical

First Term

140.611 Statistical Reasoning in Public Health I <i>(Fulfills biostatistics requirement)</i>	TTh 10:30-11:50 **	3 units
180.609 Principles of Environmental Health I	MW 1:30-3:20	4 units
187.610 Public Health Toxicology	WF 3:30-4:50 **	4 units
317.600 Introduction to the Risk Sciences & Public Policy	MW 5:00-6:30 **	3 units
340.601 Principles of Epidemiology	MWF 8:30-9:20 *	5 units
550.865 Public Health Perspectives on Research I	F 1:30-2:50 <i>OR</i> T 10:30-11:50	<u>1 unit</u>
		20 units

Second Term

180.610 Principles of Environmental Health II	TTh 8:30-10:20	4 units
180.860 Special Studies MHS Essay	TBA	2 units
183.631 Fundamentals of Human Physiology	MW 1:30-3:20 **	4 units
550.860 Research Ethics (306.665 may be taken instead during 3rd term)	Internet	1 unit
550.866 Public Health Perspectives on Research II	F 1:30-2:50 <i>OR</i> T 10:30-11:50	1 unit
Electives		<u>~4 units</u>
		~16 units

Third Term

180.860 Special Studies MHS Essay	TBA	2 units
306.665 Research Ethics and Integrity <i>(550.860 may be taken instead during 2nd term)</i>	TTh 1:30-2:50	3 units
Electives		<u>~11 units</u>
		~16 units

Fourth Term

180.860 Special Studies MHS Essay	TBA	2 units
Electives		<u>~14 units</u>
		~16 units

Total units for graduation 64 units

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

** Also offered via Internet

Note: Some courses may be taken via the Internet (i.e. Public Health Toxicology; Fundamentals of Human Physiology; Introduction to Risk Sciences). See current schedule for Internet course offerings. Although taking required courses online rather than face-to-face should not be the first choice, doing so may distribute the course load more evenly for some students' course plans.

Students interested in pursuing the Certificate in Humane Sciences and Toxicology Policy or the Certificate in Risk Sciences and Public Policy, as part of their MHS Program, should discuss the specific course requirements with their advisor prior to first-term registration.