



ENVIRONMENTAL HEALTH MAJOR—M.P.H., M.S., Ph.D.



UNIVERSITY OF MINNESOTA

School of Public Health

The Environmental Health (EH) major emphasizes the scientific, technological, policy, and management skills needed to address environmental health concerns. Students may pursue a general program in environmental health, or focus on an area such as environmental health policy, infectious disease, or toxicology. The Environmental Health program offers high-quality laboratory facilities, small classes, individual faculty attention, proximity to a large academic health center, and opportunities to participate in faculty research.

For more information about the Division of Environmental Health Sciences

Web site:
<http://enhs.umn.edu>
Major Coordinator:
Kathy Soupir
E-mail: soupi001@umn.edu
Phone: (612) 625-0622
Fax: (612) 626-4837

School of Public Health, Student Services Center, and application informa- tion and materials

Web site:
[www.sph.umn.edu/
students/application/](http://www.sph.umn.edu/students/application/)
E-mail: sph-ssc@umn.edu
Phone: (612) 626-3500
Toll Free: (800) 774-8636
Fax: (612) 624-4498

Program Curriculum

Note: (F) = fall semester, (S) = spring semester.

Required Courses for all Degree Programs

Environmental Health Core Courses

Exposure to Environmental Hazards (F) (*PubH 6103, 2 credits*)
Environmental Health Effects (F) (*PubH 6104, 2 credits*)
Environmental and Occupational Health Policy (S) (*PubH 6105, 2 credits*)
Master's Project (F/S) (S-N grade only) (*PubH 7194, 3–5 credits*)

One of the following Epidemiology courses:*

Fundamentals of Epidemiology (F/S) (*PubH 6320, 3 credits*)
Epidemiologic Methods I (S) (*PubH 6341, 3 credits*)

One of the following Biostatistics courses:*

Biostatistical Methods I (F) (*PubH 6414, 3 credits*)
Biostatistical Methods II (S) (*PubH 6415, 3 credits*)
Biostatistics I (F/S) (*PubH 6450, 4 credits*)
Biostatistics II (S) (*PubH 6451, 4 credits*)

One of the following Ethics courses:*

Ethics in Public Health: Practice and Policy (F/S) (*PubH 6741, 1 credit*)
Ethics in Public Health: Research and Policy (F/S) (*PubH 6742, 1 credit*)

Additional Required Courses for the M.P.H.

Field Experience (F/S; S-N grade only) (*PubH 7196, 3–5 credits*)
Social and Behavioral Science (F/S) (*PubH 6020, 3 credits*)
Principles of Management in Health Services Organizations (F/S)
(*PubH 6751, 2 credits*) **or**
Public Health Management (F/S) (*PubH 6752, 3 credits*)

*Check with your advisor for selection.

Specialty Requirements

Additional required and elective courses are determined by area of study within the EH major. Consult your faculty advisor for specialty requirements, electives and time required to complete the specialty.

In addition, PubH 8888 Dissertation (24 credits) for the Ph.D. and PubH 8777 Thesis (10 credits) or PubH 7194 Master's Project (3–5 credits) for the M.S. are required.

Students may elect a general program in environmental and occupational health, or focus in one of the following specialty areas:

- Environmental Chemistry
- Environmental and Occupational Epidemiology
- Environmental Health Policy
- Environmental Infectious Diseases
- Environmental Toxicology
- Exposure Sciences
- Global Environmental Health
- Industrial Hygiene
- Occupational Health Nursing
- Occupational Medicine (occupational medicine residents only)

Required coursework for the EH major, specialty requirements, and electives will allow students to tailor programs to match their interests. In addition, M.S. degree students may designate a minor field to complement the environmental health major.

Course List

Fall Semester Offerings

Exposure to Environmental Hazards (*PubH 6103, 2 credits*)
Environmental Health Effects (*PubH 6104, 2 credits*)
Risk Analysis (*PubH 6112, 3 credits*)
Foundation of Environmental Worker Protection Law (*PubH 6114, 1 credit*)
Global Health (*PubH 6131, 2 credits*)
Introduction to Occupational Health and Safety (*PubH 6170, 3 credits*)
Hazardous Materials and Waste Management (*PubH 6176, 2 credits*)
Environmental Chemistry (*PubH 6190, 3 credits*)

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Validity Concepts in Epidemiologic Research (*PubH 8140, 2 credits*)
Advanced Toxicology (*PubH 8160, 2 credits*)
Current Literature in Toxicology (*PubH 8161, 1 credit*)
Advanced Industrial Hygiene Applications (*PubH 8170, 2 credits*)
Ecology of Infectious Diseases (*PubH 6180, 3 credits*)

Spring Semester Offerings

Environmental/Occupational Health Policy (*PubH 6105, 2 credits*)
Exposure to Physical Agents (*PubH 6173, 2 credits*)
Worker Law Protection (*PubH 6115, 1 credit*)
Environmental Law (*PubH 6116, 1 credit*)
Injury Prevention (*PubH 6120, 2 credits*)
Regulatory Toxicology (*PubH 6161, 2 credits*)
Seminar: Safety in the Workplace (*PubH 6122, 1 credit*)
Violence Prevention and Control (*PubH 6123, 2 credits*)
Occupational Medicine (*PubH 6130, 3 credits*)
Occupational and Environmental Epidemiology (*PubH 6140, 2 credits*)
Interdisciplinary Evaluation of Occupational Health and Safety Field Problems (*PubH 6150, 3 credits*)
Metabolomics (*PubH 6160, 2 credits*)
Industrial Hygiene Applications (*PubH 6172, 2 credits*)
Control of Workplace Exposure (*PubH 6174, 3 credits*)
Industrial Hygiene Measurement Lab (*PubH 6175, 2 credits*)
Surveillance of Foodborne Diseases and Food Safety Hazards (*PubH 6181, 2 credits*)
Air Pollution (*PubH 6191, 3 credits*)
Current Literature in Toxicology (*PubH 8161, 1 credit*)

Courses Offered Each Term

Topics: Injury Prevention (*PubH 6121, 1–2 credits*)
Directed Study in Environmental Health (*PubH 7193, 1–4 credits*)
Master's Project (*PubH 7194, 1–3 credits*)
Field Experience (*PubH 7196, 1–5 credits*)
Occupational Injury Epidemiological Research Seminar (*PubH 8120, 1 credit*)
Doctoral Seminar in Observational Inference (*PubH 8141, 2 credits*)
Directed Research: Environmental/Occupational Health (*PubH 8194, 1–6 credits*)

Admission Preferences and Prerequisites

Admission requires a baccalaureate degree or higher from an accredited college or university. Admissions committees in each major review applicants according to their personal statements, background and experience, record of academic achievement, demonstrated academic potential, letters of recommendation, compatibility of interests with program faculty, and other factors. Test scores and GPAs provide competitive points of reference for admission but are not alone decisive in the admissions review.

It is preferred that applicants hold a baccalaureate degree with coursework in the basic sciences. Each specialty area requires slightly different preparation.

Preferred Performance Levels

- A cumulative undergraduate GPA of 3.00
- A GRE score of 1000 combined verbal and quantitative, and 3.5 analytic writing assessment. Also acceptable: DAT, GMAT, LSAT, or MCAT. (The test is not required for applicants with a doctoral-level degree from an accredited U.S. school.)
- TOEFL scores of 600 on the paper test **or** 250 on the computer-based test **or** 90 on the internet-based (iBT) test for applicants whose native language is not English

Occupational health nursing applicants must have a baccalaureate degree from an accredited school of nursing.

Doctoral applicants are expected to substantially exceed the general admission preferences.

Application Deadlines for Fall Admission

- Priority: Preceding December 15
- Final: Preceding June 15

Admission Decisions

Applications are reviewed by the admissions committee throughout the year. If the committee recommends admission based on criteria of the specialty area and the associate dean approves, the applicant receives an official letter offering admission. Applicants denied admission receive a letter with suggestions to improve qualifications should they choose to reapply at a later time.

Dual/Joint Degrees

The School of Public Health offers numerous joint and dual degree options in collaboration with schools and colleges across the University, including business, law, journalism, nursing, medicine, public policy, social work, and veterinary medicine. For more information, please see <http://www.sph.umn.edu/education/degrees/dualdegrees/home.html>.

The industrial hygiene master's programs (M.S. and M.P.H) are accredited by the Applied Science Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), 111 Market Place, Suite 1050, Baltimore MD 21202-4012, (410) 347-7700.