

Master of Public Health, MPH

Requirements

The Master of Public Health requires 42 s.h. of graduate credit. Students must choose one of the following subprograms: biostatistics [p. 1], community and behavioral health [p. 2], epidemiology [p. 3], occupational and environmental health [p. 4], policy [p. 4], practicing veterinarians [p. 4], or professional [p. 5].

Degree requirements include a core course in public health practice and in each of the five core disciplines of public health (biostatistics, epidemiology, environmental health, health policy and management, and social and behavioral sciences), a set of content-specific required courses and electives, one interprofessional education course, an applied practice experience, and a capstone experience. Students in the epidemiology subprogram must complete a bioscience course.

All MPH students complete the coursework listed under "Common Requirements." In addition, students complete the coursework listed for their chosen subprogram.

Common Requirements

The following coursework is required for all MPH students. Students must earn a B-minus or higher in each core course. Students may repeat courses to achieve this standard.

Core Courses

Course #	Title	Hours
All of these (18 s.h.):		
CPH:5100	Introduction to Public Health	3
BIOS:4120	Introduction to Biostatistics (students in the biostatistics subprogram may substitute BIOS:5710)	3
CBH:4105	Introduction to Health Promotion and Disease Prevention	3
EPID:4400	Epidemiology I: Principles	3
HMP:4000	Introduction to the U.S. Health Care System (students in the policy subprogram may substitute HMP:5005)	3
OEH:4240	Global Environmental Health	3

Interprofessional Education Course

This course is required for all MPH students. Students in a combined degree program (i.e., MPH/MD, MPH/PharmD, MPH/DVM) or the professional subprogram will have this requirement waived since the content is covered in pharmacy, medicine, or veterinary courses, or professional experience prior to enrollment in the MPH program.

Course #	Title	Hours
This course:		
CPH:5203	Interprofessional Education and Practice for MPH Students III	0

Applied Practice Experience

This requirement is a fieldwork experience in which students show proficiency in applying academic principles in community settings. There are many applied practice opportunities for MPH students locally, nationally, and internationally.

Before students register for and begin the applied practice experience, they choose an approved topic. A final written report with an oral presentation or a poster presentation is required.

Course #	Title	Hours
This course:		
CPH:7500	MPH Applied Practice Experience	2

Capstone Experience

Students are required to complete the capstone experience in their final semester.

Course #	Title	Hours
This course:		
CPH:7200	MPH Capstone Experience	1

Subprograms

Biostatistics Subprogram

The Master of Public Health with the biostatistics subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Biostatistics.

The subprogram is designed to train public health professionals who can provide leadership in the analysis of public health data and the design of studies for public health investigations. It is intended for individuals who are interested in public health and who have quantitative ability but not advanced mathematics training.

Applicants to the subprogram must meet all MPH admission requirements; see Admission [p.] in this section of the catalog. They also should have a cumulative grade-point average of at least 3.00 and should have completed the following math and computer science coursework: single variable calculus and matrix algebra, satisfied by one semester of calculus equivalent to AP Calculus AB and a high school algebra course involving matrices; and elementary computer programming instruction in any commonly used modern programming language (e.g., Python, Java, C++). Individuals who are admitted to the subprogram without having met all of these requirements must satisfy unmet requirements during their first semester of enrollment in the program.

In addition to the MPH coursework listed under "Common Requirements" above, the biostatistics subprogram requires the following courses.

Biostatistics Subprogram Core

Course #	Title	Hours
All of these (8 s.h.):		
BIOS:4510	Data Science Foundations in R	2
BIOS:5120	Regression Modeling and ANOVA in the Health Sciences	3
BIOS:5130	Applied Categorical Data Analysis	3

Students with sufficient mathematical background can substitute BIOS:5710 Biostatistical Methods I, BIOS:5720 Biostatistical Methods II, and BIOS:5730 Biostatistical Methods in Categorical Data in place of BIOS:4120 Introduction to Biostatistics, BIOS:5120 Regression Modeling and ANOVA in the Health Sciences, and BIOS:5130 Applied Categorical Data Analysis. The advanced sequence requires 2 s.h. of fewer elective credits.

Biostatistics Electives

Electives (13 s.h.) may be chosen from the following list and may include any related course approved by the student's advisor.

Course #	Title	Hours
BIOL:4213	Bioinformatics	4
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3
BIOS:6420	Survey Design and Analysis	3
BIOS:6610	Statistical Methods in Clinical Trials	3
BIOS:6650	Causal Inference	3
BIOS:6720	Statistical Machine Learning for Biomedical and Public Health Data	3
BIOS:6810	Bayesian Methods and Design	3
BIOS:7270	Scholarly Integrity in Biostatistics	1
BIOS:7600	Advanced Biostatistics Seminar	0-3
CS:4470	Health Data Analytics	3
CS:4740	Large Data Analysis	3
CS:5110	Introduction to Informatics	3
DATA:6200	Predictive Analytics	3
EPID:5200	Principles of Public Health Informatics	3
EPID:6920	Applied Administrative Data Analysis	2
ISE:4172	Big Data Analytics	3
STAT:3100	Introduction to Mathematical Statistics I	3
STAT:3101	Introduction to Mathematical Statistics II	3
STAT:3210	Experimental Design and Analysis	3
STAT:4100	Mathematical Statistics I	3
STAT:4101	Mathematical Statistics II	3
STAT:4520	Bayesian Statistics	3
STAT:4540	Statistical Learning	3

STAT:4580	Data Visualization and Data Technologies	3
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Community and Behavioral Health Subprogram

The Master of Public Health with the community and behavioral health subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Community and Behavioral Health.

The subprogram prepares public health practitioners for a variety of positions related to community development, health program implementation, and health education. Students learn how to design, implement, and evaluate evidence-based interventions directed toward identified public health problems in populations.

A bachelor's degree in the social and behavioral sciences is good preparation for this program, but students come from a variety of educational backgrounds. Preference is given to applicants who have professional experience.

In addition to the MPH coursework listed under "Common Requirements" above, the community and behavioral health subprogram requires the following courses.

Community and Behavioral Health Subprogram Core

Students earn 18 s.h. in the required subprogram core.

Theory

Course #	Title	Hours
This course:		
CBH:5220	Health Behavior and Health Education	3

Community and Society

Course #	Title	Hours
This course:		
CBH:6230	Health Equity, Disparities, and Social Justice	3

Intervention

Course #	Title	Hours
One of these:		
CBH:6205	Designing and Implementing Interventions	3
CBH:6220	Health Communication Campaigns	3

Methods

Course #	Title	Hours
Both of these:		
CBH:5305	Evaluation: Approaches and Applications	3
CBH:6335	Research Methods in Community and Behavioral Health	3
One of these:		
CBH:5235	Community-Based Participatory Research	3
CBH:5310	Qualitative Research for Public Health	3

Community and Behavioral Health Electives

Students must take an additional 3 s.h. of elective community and behavioral health coursework or, with the approval of their advisor, they can select coursework in another area. In addition, once the 18 s.h. of required community and behavioral health credit is met, students may take any of the other courses as electives.

The following is a list of suggested elective courses.

Course #	Title	Hours
CBH:4140	Feminist Activism and Global Health	3
CBH:5350	Foundations of Maternal and Child Health	3
CBH:5435	Substance Abuse Prevention and Early Intervention	3
CBH:5440	Prevention and Early Intervention of Mental Health Disorders	3
CBH:6115	Ethnographic Field Methods	3
CBH:6405	Global Maternal, Newborn, and Child Health	3
CBH:6415	Independent Study in Community and Behavioral Health	arr.
HMP:6360	Nonprofit Organizational Effectiveness I	3
SOC:6420	Seminar: Selected Topics in Deviance and Control	3
URP:6253	Designing Sustainable and Healthy Cities	1-3
URP:6260	Transportation Policy and Planning	3

Epidemiology Subprogram

The Master of Public Health with the epidemiology subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Epidemiology.

The subprogram focuses on fundamental epidemiological concepts and methods and provides training in the use of public health data and methods for disease assessment and in methods for evaluating the need and outcome of programs and interventions. Graduates of the program work in public health departments and other health care settings.

Epidemiology subprogram students are required to attend departmental seminars and journal club. They also must present one scientific poster at an international, national, regional, state, university, or departmental poster session.

In addition to the MPH coursework listed under "Common Requirements" above, the epidemiology subprogram requires the following courses.

Epidemiology Subprogram Core

Course #	Title	Hours
All of these (15 s.h.):		
EPID:5241	Statistical Methods in Epidemiology	4
EPID:5925	Epidemiology Journal Club: Evaluating the Literature (taken three times)	0

EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data	3
EPID:5580	Public Health Laboratory Techniques	1
EPID:5600	Introduction to Epidemiology Data Management and Analysis	3
EPID:6400	Epidemiology II: Advanced Methods	4
Bioscience—one of these (3–4 s.h.):		
PATH:5270	Pathogenesis of Major Human Diseases	3
PATH:8133	Introduction to Human Pathology for Graduate Students	3-4

Students who already have completed a course equivalent to one of the bioscience courses, PATH:5270 Pathogenesis of Major Human Diseases or PATH:8133 Introduction to Human Pathology for Graduate Students, may substitute an additional elective.

Epidemiology Electives

Additional approved elective coursework must be taken to complete the 42 s.h. total required for the MPH. At least 3 s.h. of elective credit must be earned in courses offered by the Department of Epidemiology (prefix EPID) or in one of the following biostatistics courses.

Course #	Title	Hours
BIOS:6210	Applied Survival Analysis	3
BIOS:6310	Introductory Longitudinal Data Analysis	3

Epidemiology Other Requirements

Department of Epidemiology Seminar

Every week during the academic year, the Department of Epidemiology seminar provides a forum for speakers to present information or research pertaining to diverse topics in epidemiology. Contact information for the seminar coordinators is located on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed weekly each semester. Students are expected to achieve at least 80% attendance at the seminar during each semester of enrollment.

Journal Club for First-Year Students

Journal Club for first-year students is for those who are new to the department and is offered in the fall semester. The focus is for students to gain experience in reading, interpreting, and critically evaluating recently published journal articles. Students should register for section 1 of EPID:5925 Epidemiology Journal Club: Evaluating the Literature.

Journal Club

Every other week during the academic year, the Journal Club meets to discuss articles of interest in the field. Contact information for the Journal Club coordinators can be found on the Department of Epidemiology website under Preceptorship, Journal Club, and Seminar Contacts. Information about the schedule is distributed to students each semester. Students are required to achieve at least 80% attendance at Journal Club for three semesters during their time in the program.

Occupational and Environmental Health Subprogram

The Master of Public Health with the occupational and environmental health subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Occupational and Environmental Health.

The subprogram provides students with a broad perspective on public health and career preparation for a variety of professional positions in occupational and environmental health. Public health experience provides desirable background for this subprogram.

In addition to the MPH coursework listed under "Common Requirements" above, the occupational and environmental health subprogram requires the following courses.

Occupational and Environmental Health Subprogram Core

Students earn 13 s.h. in the required subprogram core.

Course #	Title	Hours
All of these (4 s.h.):		
OEH:5010	Occupational and Environmental Health Seminar (taken three times; twice for 0 s.h. and once for 1 s.h.)	0-1
OEH:5620	Occupational Health	3
Three of these (9 s.h.):		
OEH:4260	Global Water and Health	3
OEH:4510	Injury and Violence Prevention	3
OEH:5410	Occupational Safety	3
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6710	Human Toxicology and Risk Assessment	3

Occupational and Environmental Health Electives

Students can earn the remainder of credit for their degree in elective courses (8 s.h.) offered by a department in the College of Public Health.

The following is a list of suggested elective courses.

Course #	Title	Hours
OEH:4260	Global Water and Health	3
OEH:4310	Occupational Ergonomics: Principles	3
OEH:4510	Injury and Violence Prevention	3
OEH:4530	Global Road Safety	3
OEH:5410	Occupational Safety	3
OEH:6110	Rural Health and Agricultural Medicine	3
OEH:6120	Current Topics in Agriculture and Rural Health	0-1
OEH:6420	Methods in Exposure Science	3
OEH:6431	Assessing Noise Hazards	1
OEH:6432	Assessing Nonionizing Radiation Hazards	1

OEH:6433	Assessing Ionizing Radiation Hazards	1
OEH:6520	Injury Epidemiology	3
OEH:6710	Human Toxicology and Risk Assessment	3

Policy Subprogram

The Master of Public Health with the policy subprogram requires 42 s.h. of graduate credit. The subprogram is offered by the Department of Health Management and Policy.

The subprogram offers coursework and applied learning experiences that prepare students for careers in health policy analysis, system and organizational planning, and program evaluation. Graduates of the program find positions in federal, state, and local government; professional associations; and private agencies. Varied academic backgrounds are appropriate preparation for this program, including business, liberal arts and sciences, and the health professions.

In addition to the MPH coursework listed under "Common Requirements" above, the policy and administration subprogram requires the following courses. Policy subprogram students may count either HMP:5005 Introduction to Healthcare Organization and Policy or HMP:4000 Introduction to the U.S. Health Care System for the "Common Requirements."

Policy Subprogram Core

Course #	Title	Hours
All of these:		
HMP:5610	Health Policy	3
HMP:5650	Health Policy Analysis	3
HMP:6610	Legal Aspects of Healthcare	2-3
HMP:6750	Seminar in Health Policy	3

Policy Electives

Course #	Title	Hours
At least 9 s.h. chosen from these:		
HMP:5310	Healthcare Quality Management	2-3
HMP:5410	Health Economics I	3
HMP:5450	Health Insurance and Managed Care	3
HMP:5750	Medicare and Medicaid Policy	3
HMP:6710	Federalism and Health Policy	3
LAW:8562	Health Law	3
HMP:6850	Independent Study and Research	arr.
POLI:3100	American State Politics	3

Practicing Veterinarians Subprogram

The Master of Public Health with the practicing veterinarians subprogram requires a minimum of 42 s.h. of graduate credit. The program is presented through a collaboration between the University of Iowa College of Public Health and the College of Veterinary Medicine at Iowa State University and is offered primarily by distance learning. It enables students to prepare for new career opportunities and equips them to respond to public health challenges such as zoonotic diseases, food security and foodborne illnesses, bioterrorism, and environmental health.

Students participate in two summer institutes, one on each campus during consecutive summers (two weeks in May or June); the rest of the program is online and students may complete requirements at times that fit their schedules. Specific courses are required each semester of the program.

In addition to the MPH coursework listed under "Common Requirements" above, the practicing veterinarians subprogram requires the following courses.

Practicing Veterinarians Subprogram Core

Course #	Title	Hours
All of these (21 s.h.):		
CPH:6700	Public Health Emergency Preparedness for Veterinarians and Other Public Health Disciplines	3
EPID:5300	Food Safety	3
EPID:5470	Applied Veterinary Epidemiology/Biostatistics	3
EPID:5540	Public Health Surveillance Mechanisms, Applications, and Data	3
EPID:5550	Diagnostic Microbiology for Epidemiology	3
EPID:5570	Zoonotic Diseases	3
OEH:6110	Rural Health and Agricultural Medicine	3

Professional Subprogram

The Master of Public Health with the professional subprogram is an individually defined concentration. Students and their advisor(s) identify courses to expand on foundational knowledge and skills, and define a set of competencies and corresponding assessments for the individual student's plan of study. The professional subprogram includes the following student populations: individuals who have already earned a professional degree and students enrolled in a combined program (MPH/MD or MPH/PharmD) [p.].

Individuals who have already earned a professional degree may choose to complete the MPH professional subprogram, allowing greater flexibility in elective course selection. Typically, students who pick this subprogram are fellows, medical residents, practicing nurses, or physicians. Completion of the subprogram can enhance physicians' ability to receive primary certification from the American Board of Preventive Medicine. Physicians who are considering this certification should review the Become Certified requirements on the American Board of Preventive Medicine website. Students may take core courses on campus or online, accommodating a variety of schedules. Students work closely with their advisor to develop a plan of study that is tailored to their specific background and goals.

In addition to the MPH coursework listed under "Common Requirements" above, the professional subprogram requires the following courses.

Professional Subprogram Core

The professional subprogram core requires 9 s.h. of coursework that expands on foundational knowledge and skills. Courses must be approved after discussion with the student's advisor.

Professional Electives

Students earn the remainder of credit for their degree (12 s.h.) in elective courses offered by the College of Public Health. Additional graduate courses may be eligible to count as electives but must be pre-approved.