



MPH-Epidemiology

The epidemiology concentration is designed for students seeking to acquire skills in the fundamental methods of disease investigation and prevention in large populations. Concentration courses emphasize basic and advanced epidemiologic principles and their application to current problems in public health and related disciplines. Students in the epidemiology concentration are expected to use appropriate methods to plan, implement, and conduct epidemiologic research. Students are also expected to critically evaluate research methodology to assess validity and potential sources of bias. Skills in computer use and statistics acquired in the public health program are used to analyze, interpret, and disseminate the results of epidemiologic investigations.

Curriculum

Core Curriculum Requirements: 15 SCH

BIOS	5210	Biostatistics for Public Health I	3 SCH
ENVR	5300	Environmental Health	3 SCH
EPID	5100	Principles of Epidemiology	3 SCH
HMAP	5210	Introduction to Health Management and Policy	3 SCH
SCBS	5110	Behavioral and Social Aspects of Public Health	3 SCH

Culminating Experience: 6 SCH*

SPH	5950	Thesis	6 SCH
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Epidemiology Concentration Curriculum

Practicum Requirement: 3 SCH

SPH	5855	Public Health Practice Experience	3 SCH
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Required Courses: 12 SCH

BIOS	5215	Biostatistics for Public Health II	3 SCH
BIOS	5740	Introduction to Statistical Packages	3 SCH
EPID	5110	Intermediate Epidemiology	3 SCH
EPID	5300	Survey Methodology	3 SCH

Methods Courses: 6 SCH

BIOS	5760	Data Management	3 SCH
EPID	6100	Advanced Epidemiology	3 SCH
EPID	6200	Experimental Methods in Epidemiology	3 SCH
EPID	6615	Epidemiologic Surveillance	3 SCH
EPID	6630	Quantitative Epidemiologic Methods	3 SCH
EPID	6635	Social Epidemiology	3 SCH
EPID	6645	Reviewing Epidemiological Evidence	3 SCH

EPID 6690	Occupational Epidemiology	3 SCH
Selective Courses: 3 SCH		
EPID 5610	Chronic Disease Epidemiology	3 SCH
EPID 5630	Infectious Disease Epidemiology	3 SCH
Elective Courses: 3 SCH or 6 SCH if taking the Comprehensive Exam		
EPID 5200	Epidemiology for Healthcare Practice	3 SCH
EPID 5690	Epidemiology of Bioterrorism /Catastrophic Events	3 SCH
EPID 5910	Independent Study in Epidemiology	3 SCH
EPID 6665	Epidemiology of Diseases of Public Health Importance	3 SCH
EPID 6670	Cancer Epidemiology	3 SCH

Important note: Students may substitute an elective course not on this list only with prior written approval of the advisor. Courses not approved as substitutes will not be applied toward the degree plan.

M.P.H. Comprehensive Examination

Epidemiology M.P.H. students are permitted to take a comprehensive exam at the end of their coursework in lieu of Thesis, which serves as their culminating experience. Students who select the comprehensive exam option must take three semester credit hours of electives. The exam covers material from EPID 5100: Principles of Epidemiology, EPID 5110: Intermediate Epidemiology, and EPID 5300: Survey Methodology. In order to take the exam a student must have a grade point average of 3.0 or higher in the aforementioned epidemiology courses. The exam is given in the third week of February and the third week of October each year. Students are responsible for informing the Department of Epidemiology of their intentions to take the exam. A student who encounters a last minute emergency (sickness, death in the family, etc.) may appeal to the exam committee for an opportunity to take a makeup exam. Students must receive at least 80% on the exam in order to pass. Students who fail the exam may, upon recommendation of the Chair of the Department of Epidemiology, be allowed to retake a different exam. However, an opportunity for retaking the exam is not automatic, and students may only retake the exam once.

Epidemiology Concentration Learning Objectives

By the conclusion of the M.P.H. program, a student in the epidemiology concentration will be able to:

1. Quickly assess a public health problem using quantitative and/or qualitative data.
2. Use relevant analysis for relevant study designs.
3. Understand the natural occurrence of disease and associated risk factors.
4. Understand the importance of ethical considerations in the conduct of epidemiological studies.
5. Identify, develop, apply and modify an appropriate research approach to an epidemiologic problem based on constraints and available resources.
6. Identify and develop data collection strategies for the appropriate epidemiologic approach.
7. Implement appropriate study designs to an epidemiologic problem.
8. Review epidemiologic literature critically.
9. Use biostatistics when analyzing an epidemiologic problem.
10. Use statistical software for the analysis of an epidemiologic problem.
11. Interpret and present findings in either a written or verbal format and from a biomedical and/or a public health perspective.
12. Present findings in tabular and graphic format as well as written and verbal.