MPH in Epidemiology

The epidemiology concentration is designed for students seeking to acquire skills in the fundamental methods of epidemiologic investigation and prevention in 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. For the culminating experience, students may choose between a thesis or a comprehensive exam. Students selecting the comprehensive exam option will complete 45 SCH and students selecting the thesis option will complete 48 SCH. 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 epidemiological 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.

Epidemiology Curriculum (45 or 48 SCH)

**CORE COURSES: 15 SCH**

| BIOS 5210 | Biostatistics for Public Health I | 3 SCH |
| ENV 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 |

**REQUIRED COURSES: 15 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 |
| EPID 5400 | Applied Data Analysis in Epidemiology | 3 SCH |
PRACTICE EXPERIENCE: 3 SCH (to be eligible for enrollment, students must complete all core courses and at least two required courses)

SPH 5855 Public Health Practice Experience 3 SCH

METHODS COURSES: 6 SCH (Choose two from the following courses)

BIOS 5760 Data Management 3 SCH
EPID 6100 Advanced Methods in Epidemiology I 3 SCH
EPID 6101 Advanced Methods in Epidemiology II 3 SCH
EPID 6200 Experimental Methods in Epidemiology 3 SCH
EPID 6300 Molecular Epidemiology 3 SCH
EPID 6615 Epidemiologic Surveillance 3 SCH
EPID 6635 Social Epidemiology 3 SCH
EPID 6690 Occupational Epidemiology 3 SCH

ELECTIVE COURSES: 3 SCH for Thesis Option or 6 SCH for Comprehensive Exam Option

Choose one from the following courses (applies to both thesis or comprehensive exam option)

EPID 5610 Chronic Disease Epidemiology 3 SCH
EPID 5630 Infectious Disease Epidemiology 3 SCH

Choose one from the following courses (applies only to the comprehensive exam option)

EPID 5200 Epidemiology for Healthcare Practice 3 SCH
EPID 5690 Epidemiology of Bioterrorism/Catastrophic Events 3 SCH
EPID 5910 Independent Study in Epidemiology 1-3 SCH
EPID 6670 Cancer Epidemiology 3 SCH

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

CULMINATING EXPERIENCE: 0-6 SCH

SPH 5950 Thesis 6 SCH
Or
Comprehensive Exam (see details below) 0 SCH

Students who select the comprehensive exam option do not register for a course in order to take the exam; however, they must complete three additional semester credit hours of electives. The exam covers material from all required courses. 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 April and the third week of November 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. In exceptional circumstances, 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.

Updated 7/30/07