



SCHOOL of  
PUBLIC HEALTH



## Department of Epidemiology

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# MPH in Epidemiology

## Academic Year 2008-2009

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 48 semester credit hours and students selecting the thesis option will complete 51 semester credit hours. 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 (48 or 51 Semester Credit Hours)

#### CORE COURSES: 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	5115	Behavioral Foundations 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**

SPH	5855	Public Health Practice Experience	3 SCH
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**CONCENTRATION SELECTIVE COURSES: 12 SCH for Thesis Option or 15 SCH for Comprehensive Exam Option**

Choose **one** from the following courses (applied to both thesis and comprehensive exam option)

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

Choose **three** from the following courses if completing the thesis option or **four** from the following courses if completing the comprehensive exam option

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	6650	Nutritional Epidemiology	3 SCH
EPID	6670	Cancer Epidemiology	3 SCH
EPID	6690	Occupational Epidemiology	3 SCH
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
BIOS	5760	Data Management	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
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Or

Comprehensive Exam (see details below)			0 SCH
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Students who select the comprehensive exam option do not register for a course in order to take the exam. 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.

MPH students enrolled in the thesis as part of their degree plan are required to demonstrate that they are actively working toward its completion. This requires confirmed submission of written materials and on-going consultation with committee members within the first and subsequent semesters of registering for thesis credit. It is the

responsibility of the student to maintain contact with their thesis advisor and committee members to assure satisfactory progress. MPH students choosing the thesis option but not making satisfactory progress as determined by their advisor may be required to take the comprehensive exam instead of the thesis or may be required to take additional courses to assure sufficient knowledge and skills needed to continue the research project. Any action taken as a result of not meeting the above expectations is subject to the discretion of the department chair.

MPH students can use attendance at Epidemiology Seminars towards the 200 hours for the Public Health Practice Experience (SPH 5855) as follows: The practicum must include attendance at a minimum of 8 and a maximum of 16 departmental seminars. This is equivalent to a minimum of 8 and a maximum of 16 credit hours being credited towards the 200 hours of the practicum required. All students must complete at least 8 credit hours of seminars for graduation.

MPH students who take the Public Health Practice Experience (SPH 5855) must include field experience in the practicum which is comprised of 1) performing actual data collection defined as abstraction of records, coding, or medical chart review and abstraction or 2) data editing and analysis. All MPH student practicum must include some element of data collection or working with raw data.