

## MPH in Epidemiology

### Academic Year 2011-2012

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 option or a comprehensive examination option. Students selecting the comprehensive examination option will complete 48 semester credit hours and students selecting the thesis option will complete 51 semester credit hours to earn the MPH degree. By the conclusion of the MPH program, a student in the epidemiology concentration will be able to:

1. Describe a public health problem in terms of magnitude, person, time and place
2. Identify key sources of data for epidemiologic purposes
3. Use data collection methods appropriate for epidemiologic research
4. Design appropriate epidemiologic studies
5. Apply analytic methods to answer epidemiologic questions
6. Design and use survey tools
7. Identify the principles and limitations of public health screening programs
8. Critically evaluate epidemiologic evidence
9. Communicate epidemiologic information to lay and professional audiences
10. Comprehend basic ethical principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data
11. Demonstrate proficiency in using statistical software to manage and analyze health related data

#### Epidemiology Curriculum (48 or 51 Semester Credit Hours)

CORE COURSES:			15 SCH
BIOS	5300	Biostatistics for Public Health 1	3 SCH
EOHS	5300	Environmental Health	3 SCH
EPID	5300	Principles of Epidemiology	3 SCH
HMAP	5300	Introduction to Health Management and Policy	3 SCH
SABS	5300	Theoretical Foundations of Individual & Community Health	3 SCH
REQUIRED COURSES:			15 SCH
BIOS	5310	Biostatistics for Public Health 2	3 SCH
EPID	5310	Intermediate Epidemiology	3 SCH
EPID	5312	Survey Methodology	3 SCH
EPID	5313	Database Management and SAS Programming	3 SCH
EPID	5314	Applied Data Analysis in Epidemiology	3 SCH

**PRACTICE EXPERIENCE:****3 SCH**

EPID	5397	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	5318	Chronic Disease Epidemiology	3 SCH
EPID	5320	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 examination option

BIOS	5324	Data Management	3 SCH
EPID	5391	Special Topics in Epidemiology	1-3 SCH
EPID	5399	Independent Study in Epidemiology	1-3 SCH
EPID	6310	Advanced Methods in Epidemiology 1	3 SCH
EPID	6312	Advanced Methods in Epidemiology 2	3 SCH
EPID	6314	Experimental Methods in Epidemiology	3 SCH
EPID	6316	Molecular Epidemiology	3 SCH
EPID	6318	Epidemiologic Surveillance	3 SCH
EPID	6320	Social Epidemiology	3 SCH
EPID	6322	Nutritional Epidemiology	3 SCH
EPID	6324	Cancer Epidemiology	3 SCH
EPID	6326	Occupational 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**

EPID	5000	MPH Comprehensive Examination	0 SCH
OR			
EPID	5395	Thesis	6 SCH

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 – EPIDEMIOLOGY

### RECOMMENDED SEQUENCE OF COURSEWORK\*

(BASED ON FALL ADMISSIONS; ASSUMES COMPREHENSIVE EXAM FOR CULMINATING EXPERIENCE)

#### TWO-YEAR CURRICULUM

FALL SEMESTER		12 SCH	(YEAR 1)
BIOS	5300	Biostatistics for Public Health 1	
EOHS	5300	Environmental Health	
EPID	5300	Principles of Epidemiology	
EPID	5313	Database Management & SAS Programming	
SPRING SEMESTER		12 SCH	(YEAR 1)
BIOS	5310	Biostatistics for Public Health 2	
EPID	5310	Intermediate Epidemiology	
		Elective	
		Elective	
SUMMER SEMESTER		9 SCH	(YEAR 1)
HMAP	5300	Introduction to Health Management & Policy	
SABS	5300	Theoretical Foundations of Ind. & Comm. Hlth.	
		Elective	
FALL SEMESTER		12 SCH	(YEAR 2)
EPID	5312	Survey Methodology	
EPID	5314	Applied Data Analysis in Epidemiology	
		Elective	
		Elective	
SPRING SEMESTER		3 SCH	(YEAR 2)
EPID	5000	MPH Comprehensive Examination	
EPID	5397	Public Health Practice Experience	

\*THE MPH COMPREHENSIVE EXAM IS ONLY OFFERED IN THE SPRING AND FALL SEMESTERS.

#### THREE-YEAR CURRICULUM

FALL SEMESTER		6 SCH	(YEAR 1)
BIOS	5300	Biostatistics for Public Health 1	
EPID	5300	Principles of Epidemiology	
SPRING SEMESTER		6 SCH	(YEAR 1)
BIOS	5310	Biostatistics for Public Health 2	
EPID	5310	Intermediate Epidemiology	
SUMMER SEMESTER		6 SCH	(YEAR 1)
HMAP	5300	Introduction to Health Management & Policy	
SABS	5300	Theoretical Foundations of Ind. & Comm. Hlth.	
FALL SEMESTER		6 SCH	(YEAR 2)
EPID	5313	Database Management & SAS Programming	
		Elective	
SPRING SEMESTER		6 SCH	(YEAR 2)
		Elective	
		Elective	
SUMMER SEMESTER		6 SCH	(YEAR 2)
EOHS	5300	Environmental Health	
		Elective	
FALL SEMESTER		6 SCH	(YEAR 3)
EPID	5312	Survey Methodology	
EPID	5314	Applied Data Analysis in Epidemiology	
SPRING SEMESTER		6 SCH	(YEAR 3)
EPID	5000	MPH Comprehensive Examination	
EPID	5397	Public Health Practice Experience	
		Elective	

\*THE RECOMMENDED SEQUENCE OF COURSEWORK REFLECTS REQUIRED COURSES THAT ARE GUARANTEED TO BE OFFERED IN THE ABOVE STATED SEMESTERS (EXCLUDES ELECTIVES). STUDENTS WHO ADHERE TO THE SEQUENCE OF COURSEWORK RECOMMENDED IN THE 2 OR 3 YEAR CURRICULUM PLAN ARE GUARANTEED TO GRADUATE WITHIN THE TIME FRAME INDICATED ABOVE.

## MPH – EPIDEMIOLOGY

### RECOMMENDED SEQUENCE OF COURSEWORK\*

(BASED ON SPRING ADMISSIONS; ASSUMES COMPREHENSIVE EXAM FOR CULMINATING EXPERIENCE)

#### TWO-YEAR CURRICULUM

SPRING SEMESTER		12 SCH (YEAR 1)
BIOS	5300	Biostatistics for Public Health 1
EOHS	5300	Environmental Health
EPID	5300	Principles of Epidemiology
SUMMER SEMESTER		3 SCH (YEAR 1)
SABS	5300	Theoretical Foundations of Ind. & Comm.
FALL SEMESTER		9 SCH (YEAR 1)
HMAP	5300	Introduction to Health Management & Policy
EPID	5313	Database Management and SAS Programming
		Elective
SPRING SEMESTER		9 SCH (YEAR 2)
EPID	5310	Intermediate Epidemiology
BIOS	5310	Biostatistics for Public Health (2)
		Elective
SUMMER SEMESTER		3 SCH (YEAR 2)
		Elective
FALL SEMESTER		9 SCH (YEAR 2)
EPID	5312	Survey Methodology
EPID	5314	Applied Data Analysis
		Elective
SPRING SEMESTER		6 SCH (YEAR 2)
EPID	5000	MPH Comprehensive Exam
EPID	5397	Public Health Practice Experience

\*THE MPH COMPREHENSIVE EXAM IS ONLY OFFERED IN THE SPRING AND FALL SEMESTERS.

#### THREE-YEAR CURRICULUM

SPRING SEMESTER		6 SCH (YEAR 1)
BIOS	5300	Biostatistics for Public Health 1
EPID	5300	Principles of Epidemiology
SUMMER SEMESTER		6 SCH (YEAR 1)
SABS	5300	Theoretical Foundations of Ind. & Comm.
HMAP	5300	Introduction to Health Management & Policy
FALL SEMESTER		6 SCH (YEAR 1)
EOHS	5300	Environmental Health
EPID	5313	Database Management and SAS Programming
SPRING SEMESTER		6 SCH (YEAR 2)
EPID	5313	Intermediate Epidemiology
BIOS	5310	Biostatistics for Public Health (2)
SUMMER SEMESTER		6 SCH (YEAR 2)
		Elective
		Elective
FALL SEMESTER		6 SCH (YEAR 2)
EPID	5312	Survey Methodology
EPID	5314	Applied Data Analysis
SPRING SEMESTER		6 SCH (YEAR 3)
		Elective
		ELECTIVE
SUMMER SEMESTER		3 SCH (YEAR 3)
EPID	5397	Public Health Practice Experience
FALL SEMESTER		3 SCH (YEAR 2)
		Elective
EPID	5000	MPH Comprehensive Examination

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