

## **Department of Epidemiology**

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# DrPH in Epidemiology Academic Year 2008-2009

This concentration is designed for health professionals who would like to become leaders in public health, specifically in epidemiology and other related areas. The Department of Epidemiology coordinates this concentration. Graduates will be able to develop their careers in academia, public health institutions or health-care facilities. They will understand public health policies and practices, identify key elements for decision-making, and be able to plan and evaluate health systems and public health programs by using epidemiologic methodology. This concentration provides the expertise and experience to plan, develop, and evaluate epidemiologic surveillance systems. Students will also gain the epidemiologic knowledge and skills to be able to plan and conduct applied epidemiologic research as independent researchers or as members of research teams. A doctoral dissertation is required providing the opportunity to apply the knowledge gained during coursework and other academic activities. The dissertation is expected to analyze and propose solutions to a problem with implications for public health practice, often by translating and applying new theoretical and technical advances to current problems in public health. Graduates of this program will be able to undertake professional, managerial or leadership positions in public health departments or academic settings, such as schools of public health, epidemiologic research institutions, hospitals or other medical facilities. By the conclusion of the Dr.P.H. program, a student in the epidemiology concentration will be able to:

- 1. Conduct epidemiological evaluations for public health programs.
- 2. Assist in the planning, development and evaluation of health systems and programs using epidemiologic methodology.
- 3. Plan, develop and evaluate epidemiologic surveillance systems.
- 4. Analyze and solve a public health issue by applying epidemiologic methodology.
- 5. Communicate findings of the analysis and solution of a problem of public health importance in professional journals.
- 6. Plan and conduct independent research focusing on the analysis and solution of a problem in public health practice.

### DrPH Prerequisites (30 Semester Credit Hours)

BIOS	5210	Biostatistics for Public Health I	3 SCH
BIOS	5215	Biostatistics for Public Health II	3 SCH
BIOS	5740	Introduction to Statistical Packages	3 SCH
ENVR	5300	Environmental Health	3 SCH
EPID	5100	Principles of Epidemiology	3 SCH
EPID	5110	Intermediate Epidemiology	3 SCH
EPID	5300	Survey Methodology	3 SCH

EPID	5400	Applied Data Analysis in Epidemiology	3 SCH
HMAP	5210	Introduction to Health Management and Policy	3 SCH
SCBS	5115	Behavioral Foundations of Public Health	3 SCH

• Prerequisite coursework does not contribute to the required total number of semester credit hours needed to graduate.

#### Epidemiology Curriculum (65 Semester Credit Hours)

#### CORE COURSES: 22 SCH BIOS 6100 Applied Statistical Methods for Data Analysis 3 SCH ENVR 6100 **Environmental Health Determinants** 3 SCH EPID 6100 Advanced Methods in Epidemiology I 3 SCH HMAP 6100 Health Care Systems 3 SCH SCBS 6100 Social & Behavioral Theories and Health Applications 3 SCH HMAP 6140 Ethical Issues in Public Health 2 SCH HMAP 6145 Leadership for Public Health 2 SCH SPH 6900 **Doctoral Capstone** 3 SCH

• Students should enroll in the Doctoral Capstone (SPH 6900) at the conclusion of all coursework.

• Students must obtain a permission number from their major professor to register for SPH 6900.

#### PRACTICE EXPERIENCE: 4 SCH

SPH	6860	Public Health Practice Residency	4 SCH
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• The Public Health Practice Residency will be managed by the Department of Epidemiology. Dr.P.H. students should refer to the Public Health Practice Residency Manual on the School of Public Health website for general guidance and policy. However, there may be additional departmental requirements related to the above policy, and students are advised to check with their advisors about them.

#### **REQUIRED COURSES: 12 SCH**

ENVR	6600	Spatiotemporal Environmental Health Modeling	3 SCH
EPID	6615	Epidemiologic Surveillance	3 SCH
EPID	6101	Advanced Methods in Epidemiology II	3 SCH
HMAP	5450	Public Health Program Planning and Evaluation	3 SCH

#### CONCENTRATION REQUIRED ELECTIVE COURSES: 18 SCH

Choose <u>four</u> from the following courses: EPID 6200 Experimental Methods in Epidemiology

EPID	6200	Experimental Methods in Epidemiology	3 SCH
EPID	6300	Molecular Epidemiology	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	6910	Doctoral Independent Study in Epidemiology	3 SCH
EPID	5200	Epidemiology for Healthcare Practice	3 SCH
EPID	5690	Epidemiology of Bioterrorism/Catastrophic Events	3 SCH
ENVR	5500	Biomarkers in Environmental Epidemiology	3 SCH
EPID EPID	5200 5690	Epidemiology for Healthcare Practice Epidemiology of Bioterrorism/Catastrophic Events	3 SCH 3 SCH

SCBS	6170	Qualitative Research Methods	3 SCH		
Choose	Choose one from the following courses:				
EPID	5610	Chronic Disease Epidemiology	3 SCH		
EPID	5630	Infectious Disease Epidemiology	3 SCH		
Choose one from the following courses:					
BIOS	5720	Survey Sampling	3 SCH		
BIOS	5725	Nonparametric Statistical Methods	3 SCH		
BIOS	5730	Regression Analysis	3 SCH		
BIOS	5735	Analysis of Variance	3 SCH		
BIOS	6750	Applied Categorical Data Analysis	3 SCH		
BIOS	6760	Multivariate Analysis	3 SCH		
BIOS	6775	Clinical Trials and Survival Analysis	3 SCH		

• Students may substitute an elective course not on this list only with prior written approval of the advisor.

- Elective courses not approved as substitutes will not be applied toward the degree plan.
- Students are strongly encouraged to take more semester credit hours than the required minimum.

#### CULMINATING EXPERIENCE: 9 SCH

SPH 6950 Dissertation

9 SCH

#### Epidemiology DrPH Qualifying Examination

Epidemiology Dr.P.H. students are required to pass a qualifying exam which is given in the third week of February and the third week of October each year. In order to take the exam, a student must have a grade point average of 3.0 or higher in all coursework. The exam is a culminating experience that tests the student's ability to integrate and apply knowledge s/he has obtained in courses such as EPID 5110: Intermediate Epidemiology; EPID 5300 Survey Methodology; EPID 5400 Applied Data Analysis in Epidemiology; EPID 6100: Advanced Methods in Epidemiology I; EPID 6101 Advanced Methods in Epidemiology II; biostatistics courses; epidemiologic journals, and other sources outside of the classroom. Students are responsible for informing the Department of Epidemiology of their intentions to take the exam. The exam consists of eight questions, of which a student must successfully answer at least seven questions in order to pass. A student who successfully answers less than six questions will fail the exam. For a student who successfully answers six questions, a decision as to whether the student passes will be made by the exam committee. Students who fail the exam may, upon recommendation of the committee, be allowed to retake a different exam or to take an oral exam. However, an opportunity for retaking the written exam or taking an oral exam is not automatic; students may only retake the exam once.

Doctoral students enrolled in dissertation credit hours are required to demonstrate that they are making satisfactory progress toward the completion of their dissertation. Satisfactory progress will be determined by the dissertation advisor. Doctoral students are required to defend their dissertation proposal before permission is granted to work on their dissertation. In the event their dissertation proposal is judged to be unacceptable by committee members, the student may be required to take additional coursework before being allowed one more opportunity to present the proposal. The dissertation proposal must be judged acceptable by all committee members to maintain satisfactory progress. Students failing the dissertation proposal defense after two tries may not continue in the program. Any action taken as a result of not meeting the above expectations is subject to the discretion of the department chair.