

MPH in Biostatistics Biometry Emphasis Academic Year 2011-2012

The MPH in Biostatistics curriculum is constructed so that students are able to choose either an emphasis in biometry or clinical research depending on their interests. There are excellent career opportunities for students wishing to pursue positions in local, state, and federal health agencies, health and medical centers, health care and clinical research institutions, the healthcare/pharmaceutical industry, and consulting. Applicants to this program are expected to have a background in college algebra and calculus.

Biometry Emphasis (48 Semester Credit Hours)

The biometry emphasis is designed to train students in data management, statistical analysis, interpretation, and presentation of analytical results using computing technology. This emphasis focuses on the methodologies and procedure of statistical analysis and research design. Students in the biometry emphasis will complete a minimum of 48 semester credit hours to earn the MPH degree. By the conclusion of the MPH program, a student in biometry emphasis will be able to:

1. Identify and develop appropriate data collection strategies for a corresponding statistical method;
2. Review statistical analyses and results critically in public health literature;
3. Disseminate statistical results to public health constituents;
4. Identify, develop, apply, and modify an appropriate statistical approach to a public health problem based on constraints and available resources;
5. Analyze and solve public health issues by applying statistical methodology;
6. Assist in the planning, development, and evaluation of health systems, health programs, and surveillance systems;
7. Conduct independent research focusing on the analysis and solution of a problem in public health.

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: 9 SCH

BIOS	5310	Biostatistics for Public Health 2	3 SCH
BIOS	5312	Regression Analysis	3 SCH
BIOS	5314	Introduction to Statistical Packages	3 SCH

PRACTICE EXPERIENCE: 3 SCH

BIOS	5397	Public Health Practice Experience	3 SCH
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ELECTIVE COURSES:**21 SCH**

BIOS	5316	Nonparametric Statistical Methods	3 SCH
BIOS	5320	Analysis of Variance	3 SCH
BIOS	5324	Data Management	3 SCH
BIOS	5399	Independent Study in Biostatistics	1-3 SCH
BIOS	6310	Probability and Statistical Inference	3 SCH
BIOS	6312	Applied Methods of Survey Sampling	3 SCH
BIOS	6314	Applied Categorical Data Analysis	3 SCH
BIOS	6318	Clinical Trials and Survival Analysis	3 SCH
BIOS	6320	Biostatistical Research and Consulting	3 SCH
BIOS	6391	Topics in Biostatistics	1-3 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 SCH**

BIOS	5000	MPH Comprehensive Examination	0 SCH
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- Upon approval by the student's advisor and the department chair, students may elect to complete a Thesis for the culminating experience. In this case, students will take 15 SCH of "ELECTIVES" coursework and 6 SCH of Thesis.

MPH – BIOSTATISTICS (BIOMETRY)

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	
EPID	5300	Principles of Epidemiology	
HMAP	5300	Introduction to Health Management & Policy	
SABS	5300	Theoretical Foundations of Ind. & Comm. Hlth.	
SPRING SEMESTER		12 SCH	(YEAR 1)
BIOS	5310	Biostatistics for Public Health 2	
BIOS	5314	Introduction to Statistical Packages	
		Elective	
		Elective	
SUMMER SEMESTER		3 SCH	(YEAR 1)
BIOS	5397	Public Health Practice Experience	
FALL SEMESTER		12 SCH	(YEAR 2)
EOHS	5300	Environmental Health	
BIOS	5312	Regression Analysis	
		Elective	
		Elective	
SPRING SEMESTER		9 SCH	(YEAR 2)
BIOS	5000	MPH Comprehensive Examination	
		Elective	
		Elective	
		Elective	

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	
BIOS	5314	Introduction to Statistical Packages	
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)
BIOS	5312	Regression Analysis	
		Elective	
SPRING SEMESTER		6 SCH	(YEAR 2)
		Elective	
		Elective	
SUMMER SEMESTER		6 SCH	(YEAR 2)
BIOS	5397	Public Health Practice Experience	
EOHS	5300	Environmental Health	
FALL SEMESTER		6 SCH	(YEAR 3)
		Elective	
		Elective	
SPRING SEMESTER		6 SCH	(YEAR 3)
BIOS	5000	MPH Comprehensive Examination	
		Elective	
		Elective	

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

*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 – BIOSTATISTICS (BIOMETRY EMPHASIS)

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	
EPID	5300	Principles of Epidemiology	
HMAP	5300	Introduction to Health Management & Policy	
SABS	5300	Theoretical Foundations of Ind. & Comm. Hlth.	
SUMMER SEMESTER		6 SCH	(YEAR 1)
BIOS	5310	Biostatistics for Public Health 2	
EOHS	5300	Environmental Health	
FALL SEMESTER		9 SCH	(YEAR 1)
BIOS	5312	Regression Analysis	
EPID	5313	Database Management and SAS Programming	
		Elective	
SPRING SEMESTER		12 SCH	(YEAR 2)
		Elective	
		ELECTIVE	
		Elective	
		Elective	
SUMMER SEMESTER		9 SCH	(YEAR 2)
BIOS	50397	Public Health Practice Experience	
FALL SEMESTER		6 SCH	(YEAR 2)
BIOS	5000	MPH Comprehensive Examination	
		Elective	
		Elective	

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)
BIOS	5310	Biostatistics for Public Health 2	
HMAP	5300	INTRODUCTION TO HEALTH MANAGEMENT & POLICY	
FALL SEMESTER		6 SCH	(YEAR 1)
BIOS	5312	Regression Analysis	
EPID	5313	Database Management and SAS Programming	
SPRING SEMESTER		6 SCH	(YEAR 2)
		ELECTIVE	
		Elective	
SUMMER SEMESTER		6 SCH	(YEAR 2)
EOHS	5300	ENVIRONMENTAL HEALTH	
SABS	5300	Theoretical Foundations of Ind. & Comm. Hlth.	
FALL SEMESTER		6 SCH	(YEAR 2)
		Elective	
		Elective	
SPRING SEMESTER		6 SCH	(YEAR 3)
		Elective	
		Elective	
Summer Semester		3 SCH	(YEAR 3)
BIOS	5397	Public Health Practice Experience	
FALL SEMESTER		3 SCH	(YEAR 3)
BIOS	5000	MPH Comprehensive Examination	

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

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