

## **MPH in Biostatistics**

### **Academic Year 2014-2015**

### **Program Profile**

Biostatistics is designed to train students in data management, statistical analysis, interpretation, and presentation of analytical results using computing technology. The concentration focuses on the methodologies and procedures of statistical analysis and research design. 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 pharmaceutical industry, and consulting. Applicants to this program are expected to have a background in college algebra and calculus.

#### **Biostatistics Concentration Competencies**

<b>Competency Description</b>
Translate mathematical and statistical foundations to biostatistics.
Design and critically evaluate study protocols in the health sciences.
Design and apply comprehensive data management strategies for health-related studies.
Identify and apply suitable statistical methods for data analyses.
Effectively communicate statistical information to health practitioners and professionals.
Understand and abide by strict ethical standards in health-related studies.

## MPH Core Competencies

The Master of Public Health degree program prepares students to address the following core competencies while advancing their knowledge of public health:

Competency	Competency Description
Public Health Knowledge & Skills	The MPH student will apply basic knowledge and skills of the core public health sciences that include: biostatistics, epidemiology, health management and policy, behavioral and community health, and environmental and occupational health, to the prevention of illness and injury and the promotion of population health.
Integration of Theory and Practice	The MPH student will demonstrate the effective integration of theory and practice related to public health issues that affect diverse populations, through a thesis or comprehensive examination and a practice experience.
Communication and Informatics	The MPH student will gather, organize, and manage data and information effectively to address public health issues through oral and written communications to diverse professionals and lay audiences.
Diversity and Culture	The MPH student will demonstrate the ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.
Professionalism	The MPH student will apply ethical principles to the practice of public health in a variety of settings, demonstrating personal integrity while embracing diverse communities.

**Master of Public Health: Biostatistics**  
**48 Credit Hours Required**  
**Full-Time – Fall Admission**

<b>Student</b>		<b>Advisor</b>		
<b>Email</b>		<b>Semester of CPH</b>		
<b>Mobile Phone</b>		<b>Semester of Comprehensive Exam</b>		
<b>Semester Program Began</b>		<b>Expected Graduation Term</b>		
<b>Semester Initiated Practice Experience</b>		<b>Completed Practice Experience Requirements</b>		
<b>Practice Site</b>		<b>Practice Supervisor</b>		
<b>Fall _____</b>				
		<b>SCH</b>	<b>Term</b>	<b>Grade (or AP)</b>
BACH 5300	Theoretical Foundations of Individual and Community Health	3		
BIOS 5301	Foundations of Biostatistics	3		
EPID 5300	Principles of Epidemiology	3		
EPID 5313	Introduction to Data Management and Statistical Computing	3		
PHED 5197	Professional and Academic Development	0.5		
<b>Spring _____</b>		<b>12.5</b>		
BIOS 5311	Regression and ANOVA	3		
BIOS/EPID _____	Elective* _____	3		
EOHS 5300	Environmental Determinants of Health	3		
HMAP 5300	Introduction to Health Management and Policy	3		
PHED 5197	Professional and Academic Development	0.5		
<b>Summer _____</b>		<b>12.5</b>		
BIOS/EPID _____	Elective* _____	3		
<b>Fall _____</b>		<b>3</b>		
BIOS 6300	Advanced Methods in Biostatistics	3		
BIOS 6314	Categorical Data Analysis	3		
BIOS 6324	Survival Analysis	3		
PHED 5197	Professional and Academic Development	0.5		
PHED 5000	Certified in Public Health (CPH) Exam	0		
<b>Spring _____</b>		<b>9.5</b>		
BIOS 6322	Longitudinal Data Analysis	3		
BIOS/EPID _____	Elective* _____	3		
BIOS 5297	Public Health Practice Experience	1.5		
BIOS 6320	Biostatistical Research and Consulting	3		
BIOS 5001	MPH Comprehensive Exam (Biostatistics)	0		
		<b>10.5</b>		
<b>Total Degree Hours</b>		<b>48.0</b>		

Reviewed and agreed on this date \_\_\_\_\_

SPH Advisor \_\_\_\_\_

Student \_\_\_\_\_

**Approved Electives:**

BIOS 5391*	Topics in Biostatistics
BIOS 6326	Methods of Clinical Trials
BIOS 6391*	Advanced Topics in Biostatistics
EPID 5310	Intermediate Epidemiology
EPID 5312	Survey Research & Questionnaire Design
EPID 6328	Secondary Data Analysis

\*May be repeated for credit provided topics are different