

MPH in Biostatistics

Academic Year 2016-2017

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.

By the conclusion of the MPH program, a student in biostatistics will be able to:

MPH-BIOS 1: **Foundation**- Translate mathematical and statistical foundations to biostatistics.

MPH-BIOS 2: **Research Design**- Design and critically evaluate study protocols in the health sciences.

MPH-BIOS 3: **Data Management**- Design and apply comprehensive data management strategies for health-related studies.

MPH-BIOS 4: **Data Analysis**- Identify and apply suitable statistical methods for data analyses.

MPH- BIOS 5: **Communication, Collaboration, and Consultation**- Effectively communicate statistical information to health practitioners and professionals.

MPH-BIOS 6: **Ethical Practice**- 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

Fall 1		SCH
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
Spring 1		
HMAP 5300	Introduction to Health Management and Policy	3
BIOS 5311	Regression and ANOVA	3
EPID 5310*	Intermediate Epidemiology	3
Summer 1		
EOHS 5300	Environmental Health (online)	3
PHED 5197	Professional and Academic Development	1
Fall 2		
BIOS 6300	Advanced Methods in Biostatistics	3
BIOS 6314	Categorical Data Analysis	3
BIOS 6324	Survival Analysis	3
BIOS 6391*	Advanced Topics in Biostatistics (topics varies)	3
PHED 5000	Certified in Public Health (CPH) Exam	0
Spring 2		
BIOS 6320	Biostatistical Research and Consulting	3
BIOS 6322	Longitudinal and Data Analysis	3
BIOS 6326/6312*	Methods of Clinical Trials / Methods of Survey Sampling	3
BIOS 5297	Practice Experience in Public Health	2
BIOS 5001	MPH Comprehensive Exam	0
	Total Degree Hours	48

*Denotes elective, may be substituted for another approved elective.

Reviewed and agreed on this date _____

SPH Advisor _____

Student _____