MPH in Epidemiology & Biostatistics
Academic Year 2015-2016
Program Profile

The knowledge and skills of epidemiology and biostatistics are essential for many careers in public health, healthcare, and medicine. The joint epidemiology-biostatistics concentration is designed to prepare students who are committed to studying the distribution and determinants of diseases and other health-related conditions in both population and clinical settings, while simultaneously developing the methodological, analytical, and communication skills for research design, data analysis, and interpretation of results.

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

MPH-EPID 1: **Descriptive Epidemiology**- Describe a public health issue in terms of magnitude, person, time, place and the ecological factors and lifespan considerations.

MPH-EPID 2: **Evidence-Based Public Health**-Identify and use sources of epidemiologic data, information, knowledge and evidence as a basis for research, decision-making and evidence-based public health practice.

MPH-EPID 3: **Critical Analysis**- Interpret findings from epidemiologic studies, demonstrating understanding of design, confounding, sources of bias and causality.

MPH- EPID 4: **Analytic Epidemiology**-Demonstrate proficiency in epidemiologic study design, measurement and analysis, including the use of statistical software.

MPH-EPID 5: **Epidemiologic Communication**- Effectively communicate epidemiologic information in a linguistically and culturally appropriate manner to the general public, professionals, policy makers, across social sectors and in inter-professional communication.

MPH-EPID 6: **Ethics**-Comprehend basic principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.

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: Epidemiology and Biostatistics
Concentration Planning Form (54 Credit Hours Required)

Student		Advisor
Email		Semester of CPH
Mobile Phone		Semester of Comprehensive Exam
Semester Program Began		Expected Graduation Term
Semester Initiated Practice Experience		Completed Practice Experience Requirements
Practice Site		Practice Supervisor

Fall _____		SCH	Term	Grade (or AP)
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		
Spring _____		**12.5**		
BIOS 5311	Regression and ANOVA	3		
EPID 5310	Intermediate Epidemiology	3		
EOHS 5300	Environmental Health	3		
HMAP 5300	Introduction to Health Management and Policy	3		
PHED 5197	Professional and Academic Development	0.5		
Summer _____		**12.5**		
EPID ____*	Elective (or Switch Elective and year 1 Spring HMAP 5300)	3		
EPID 6318*	Surveillance (recommended; However elective permitted)	3		
Fall _____		**6**		
BIOS 6300	Advanced Methods in Biostatistics	3		
BIOS 6314	Categorical Data Analysis	3		
BIOS 6324	Survival Analysis	3		
EPID 5312	Survey Research & Questionnaire Design	3		
PHED 5197	Professional and Academic Development	0.5		
PHED 5000	Certified in Public Health (CPH) Exam	0		
Spring _____		**12.5**		
BIOS 6322	Longitudinal Data Analysis	3		
Epid 5318*	Chronic Disease Epidemiology	3		
EPID/BIOS 5297	Public Health Practice Experience	1.5		
BIOS 6320	Biostatistical Research and Consulting	3		
EPID 5001	MPH Comprehensive Exam (Epidemiology)	0		
BIOS 5001	MPH Comprehensive Exam (Biostatistics)	0		
		10.5		
	Total Degree Hours	**54.0**		

*Recommended Epidemiology Electives
Epid 6318 Survillance
Epid 5318 Infectious Disease Epidemiology
Epid 5391 Topics: Maternal Child Health, Molecular, or Cancer Epidemiology
Epid 5391 Topics: Bilogical Basis for Public Health (For Students without clinical or biological
background;recommend taking in Year 1 Spring as Elective, and take Hmap 5300 in the following summer term.)
Reviewed and agreed on this date _____
SPH Advisor _____   Student _____