UNT | HEALTH SCIENCE CENTER

SCHOOL OF PUBLIC HEALTH

Office of Admission & Academic Services
CEEAD 716
Phone: 817-735-2401
sph@unthsc.edu

PhD in PUBLIC HEALTH SCIENCES

Academic Year 2013-2014

Biostatistics

Program Profile

The PhD program in Public Health Sciences prepares professionals for research, teaching, and service with the overall objective of improving the health of populations. To meet this objective, all students in the program pursue excellence in conducting research and disseminating knowledge. The primary focus is on research that advances knowledge and facilitates discovery regarding etiology, interventions, and policies that promote health at the individual, population, societal, and/or global levels. The concentration in biostatistics focuses on the reasoning and methods for using data as evidence to address public health and biomedical questions. It is an approach and a set of tools for designing studies, analyzing data, quantifying evidence, and making decisions. The PhD curriculum will prepare the student for three roles (researcher, collaborator/communicator, and educator) which are commonly expected of a Biostatistician.

Role as a Researcher: Research in biostatistics is characterized by a commitment to statistical science where foundations, methodology, and applications to the solution of public health and biomedical problems are mutually supportive. The goals of foundational research are in the development of better strategies, or ways of reasoning, for empirical studies. The goals of methodological research are in the creation of new tools or techniques for drawing inferences from data. The goals of application research are in the implementation of the aforementioned foundations and methodologies. Upon completion of the PhD in Public Health Sciences degree with a concentration in Biostatistics, the student will have demonstrated proficiency in the following research competencies:

- Perform independent research where original/new biostatistical foundations, methodologies or applications are developed.
- Review and synthesize literature and proposals critically from a biostatistical point of view in preparation for future peer-reviewed publications and grant proposals.

Role as a Collaborator/Communicator: Collaboration is characterized by a responsibility to ensure that researchers from various other disciplines have access to statistical knowledge, resources, and support which enhance the quality, integrity, and validity of their studies or projects. Communication is characterized by a demonstration of skills in written, oral, and graphical translation of statistical ideas, methods, and results in non-statistical terminology. Upon completion of the PhD in Public Health Sciences degree with a concentration in Biostatistics, the student will have demonstrated proficiency in the following collaboration and communication competencies:

- Adapt and apply existing statistical methods as dictated by the needs of a particular study or project as it relates to, but not limited to, study design and analysis.
- Effectively translate biostatistical ideas, methods, and results to collaborating colleagues.

Role as an Educator: Scholarship is characterized by the dissemination of gained knowledge to public health students, professionals, and scientists. Upon completion of the PhD in Public Health Sciences degree with a concentration in Biostatistics, the student will have demonstrated proficiency in the following scholarship competencies:

- Identify biostatistical concepts and methods needed by a specified group of people.
- Disseminate the said concepts and methods effectively through lectures and written materials.

The PhD program requires a minimum of 90 semester credit hours (SCH) post-baccalaureate degree and is offered on a full time or part-time basis. Any graduate credits post-baccalaureate, including master's degree courses may be applied to coursework outlined within the PhD degree plan. A student may apply up to 42 SCH of previously taken graduate level courses toward the completion of the Ph.D. coursework (Advanced Standing). All such courses are subject to approval by the advisor.

PhD Core Courses	BIOS Concentration Required	PhD Culminating Experience
BIOS 5300 Biostatistics for Public Health I	EPID 6300 Intermediate Epidemiology for Public Health Practice	BIOS 6000 PhD Comprehensive Examination
EOHS 5300 Environmental Health	BIOS 5312 Regression Analysis	BIOS 6395 Doctoral Dissertation (12 SCH)
EPID 5300 Principles of Epidemiology	BIOS 5314 Intro to Statistical Packages	PhD Portfolio
HMAP 5300 Intro to Health Management and Policy	BIOS 5316 Nonparametric Statistical Methods	
BACH 5300 Theoretical Foundations of Individual & Community Health	BIOS 5320 Analysis of Variance (ANOVA)	
BIOS 5310 Biostatistics for Public Health 2	BIOS 6314 Applied Categorical Data Analysis	
BIOS 6300 Applied Statistical Methods for Data Analysis	BIOS 6318 Clinical Trials & Survival Analysis	
HMAP 6360 Ethical Issues in Public Health	BIOS 6320 Biostatistical & Research Consulting	
PHED 6118 Seminar in Public Health Research	BIOS 6391 Topics in Biostatistics: Probability & Statistical Inference	
PHED 6220 Scientific and Grant Writing	BIOS 6391 Topics in Biostatistics: Linear Models	
PHED 6321 Pedagogy in Public Health		
PHED 6314 Methods for Public Health Studies		

***BIOS Electives 15 semester credit hours with no more than 9 semester credit hours at the 5000 level. Advisor approval must be provided for all electives.**

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Advanced Standing Request Form

UNTHSC Course you wish to request advanced standing for:	Course in lieu of UNTHSC course (i.e., Advanced Standing)	University Name	Semester/Year	Semester Credit Hours	Syllabus Submitted to Academic Services
Example: BIOS 5300: Biostatistics for Public Health 1	STATS 6000: Statistics for Health Services	University of Public Health	Spring 2013	3 SCH	Yes

Advisor Signature:

Office of Academic Services Signature: