UNT HEALTH SCIENCE CENTER

SCHOOL OF PUBLIC HEALTH

Department of Biostatistics

Sharon Homan, PhD
Professor and Interim Department Chair
UNT Health Science Center
School of Public Health
Education & Administration Building -708A
817-735-2173
sharon.homan@unthsc.edu

MPH in Biostatistics

Academic Year 2012-2013

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

1. **Public Health Knowledge and 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.
2. **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.
3. **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.
4. **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.
5. **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.

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.

Students in biostatistics will complete a minimum of 48 semester credit hours to earn the MPH degree. By the conclusion of the MPH program, a student in will be able to:

1. Translate mathematical and statistical foundations to biostatistics;
2. Design and critically evaluate study protocols in the health sciences;
3. Design and apply comprehensive data management strategies for health-related studies;
4. Identify and apply suitable statistical methods for data analyses;
5. Effectively communicate statistical information to health practitioners and professionals;
6. Understand and abide by strict ethical standards in health-related studies.

Biostatistics Curriculum (48 Semester Credit Hours)

CORE COURSES:			**15 SCH**
BACH	5300	Theoretical Foundations of Individual & Community Health	3 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
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
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 with prior approval of their advisor.

CULMINATING EXPERIENCE:			**0 SCH**
PHED	5000	Certified in Public Health Examination	0 SCH
BIOS	5001	MPH Comprehensive Examination	0 SCH

- 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.