UNTHSC School of Public Health
MS in Public Health Sciences – Biostatistics concentration

The Master of Science (MS) concentration in Biostatistics (36 credit hours) is designed to train students in foundations of statistical theory as well as applications of statistical methods for use in public health, medicine, or other health related fields. The program focuses on the skills for data management, statistical analysis, interpretation of analytical results, presentation of the findings, and scientific communication. In addition to the fundamental courses in biostatistics, students in this program will take coursework in three areas currently in high demand in biostatistics: Bayesian data analysis, statistical genetics, and clinical trials. As the culminating experience of the program, students will write a discovery-based paper that meets current standards for publication in refereed journals. Graduates of the program will be prepared to apply to doctoral degree programs in biostatistics or to pursue research staff positions in health and medical centers, health departments, governmental agencies, the pharmaceutical industry, and consulting.

In addition to the general MS admissions requirements, applicants to this program are expected to have a strong background in univariate calculus, multivariate calculus, and linear algebra.

Students in the MS degree program in Public Health Sciences are admitted in Fall Semesters as a cohort. Full-time enrollment is required and students are expected to graduate in five consecutive semesters. Students follow a weekly calendar of curricular and co-curricular activity that occupies 8-hour blocks of time, Monday through Friday. Students are strongly discouraged from holding employment when courses are in session.

MS – Biostatistics Concentration (cohort program completed in 5 consecutive semesters)

Courses	Credit Hours	Total Hours
Fall Semester		
BIOS 5310: Intermediate Biostatistics	3	3
BIOS 6310: Probability and Statistical Inference	3	6
EPID 5313: Introduction to Data Management and Statistical Computing	3	9
Spring Semester		
BIOS 6324: Survival Analysis	3	12
BIOS 6326: Methods of Clinical Trials	3	15
PHED 5391: Topics in Public Health – Public Health Concepts	3	18
Summer Semester		
Thesis Proposal Development	0	18
Fall Semester		
BIOS 6314: Categorical Data Analysis	3	21
BIOS 6391: Advanced Topics in Biostatistics – Bayesian Data Analysis	3	24
PHED 5391: Topics in Public Health – Scientific Writing	3	27
Spring Semester		
BIOS 6322: Longitudinal Data Analysis	3	30
BIOS 6391: Advanced Topics in Biostatistics – Statistical Genetics	3	33
BIOS 5395: Thesis (discovery-based paper)	3	36