

EPIDEMIOLOGY, MS

The MS in Epidemiology is an academic degree that prepares students for careers in research. It serves students new to public health as well as those currently working in the field who wish to gain the quantitative skills necessary to conduct population based research. The curriculum focuses on understanding theoretical issues and applying disciplinary methods to the study of public health problems. Coursework includes learning experiences in epidemiologic methods, biostatistics, data management, analysis and interpretation of findings in content areas such as chronic or infectious disease, reproductive, molecular, or genetic epidemiology. Students learn the design, conduct, analysis and interpretation of epidemiological studies, and implementation, from developing protocols and instruments, to the selection and recruitment of subjects, data collection and quality control. These skills prepare graduates for engaging roles in research activities that impact public health planning, control and global disparities.

Program Competencies

1. Define the concepts and contents of epidemiology.
2. Determine study aim, objectives and appropriate study design to address the hypothesis.
3. Identify risk and/or preventive factors that may contribute to outcomes and incorporate them into a research study.
4. Use computers to collect, manage, and analyze data for evaluation of hypotheses.

Requirements

The MS Degree in Epidemiology requires 42 credits that includes:

Course ID	Title	Credits
Epidemiology Course Requirements		
SPHL 6020	Foundations in Public Health	3
SPHL 6060	Epidemiology for Public Health	3
EPID 6230	Computer Packages for Epidemiology	3
EPID 7000	Departmental Seminar	0
EPID 7120	Epidemiologic Methods II	3
EPID 7130	Observational Epidemiology	3
EPID 7220	Analytic Epidemiology	3
Epidemiologic Methods Course Requirements		
Select two of the following:		6
EPID 6290	Genetic Epidemiology	
EPID 6340	Clinical and Translational Research Methods	
EPID 6350	Implementation Science in Public Health	
EPID 6420	Clinical Epidemiology	
EPID 6500	Nutritional Epidemiology	
EPID 6750	Outbreak Epidemiology	
EPID 7110	Spatial Epidemiology	
EPID 7160	Survey Methodology	
EPID 7170	Clinical Trials: Design, Conduct & Interpretation	
EPID 7310	Meta-Analysis	
Descriptive Epidemiology Course Requirements		
Select two of the following:		6
EPID 6090	Epidemiology of Infectious Diseases	
EPID 6210	Cancer Epidemiology	
EPID 6220	Cardiovascular Disease Epidemiology	
EPID 6320	Molecular Epidemiology	
EPID 6480	Reproductive Epidemiology	
EPID 6490	Environmental Epidemiology	
EPID 6600	Social Epidemiology: Mechanisms of Disparities	
EPID 7210	Epidemiology of Sexual Health	
EPID 7810	Human Molecular Genetics	

Biostatistics Course Requirements

SPHL 6050	Biostatistics for Public Health	3
BIOS 6040	Intermediate Biostatistics	3
Electives		6
Total Credit Hours		42

Minimum Prerequisite Grade Requirements for Advanced Epidemiology Courses

Some advanced epidemiology courses have specific **prerequisite grade requirements**. Students must earn a **minimum grade of B- or B** in prerequisite courses to be eligible to enroll in subsequent coursework. Meeting the general academic standing requirements does not override prerequisite grade requirements for individual courses. Please refer to the Epidemiology Handbook or discuss with your faculty advisor, program manager, or student success advisor.

Thesis

Students must successfully complete a thesis. The thesis is based on a supervised research project demonstrating scholarship in the area of epidemiology. The results will be presented orally and in writing and reviewed by two faculty members. The master's thesis must be completed within a year of completion of the required courses. It should be an academic investigation suitable for publishing.

MS in Epidemiology Model Course Schedule

		Credit Hours
Year 1		
Fall		
SPHL 6050	Biostatistics for Public Health	3
SPHL 6060	Epidemiology for Public Health	3
SPHL 6020	Foundations in Public Health	3
EPID 6230	Computer Packages for Epidemiology	3
EPID 7000	Departmental Seminar	0
Credit Hours		12
Spring		
BIOS 6040	Intermediate Biostatistics	3
EPID 7120	Epidemiologic Methods II	3
Descriptive Epidemiology Courses or Electives		6
Credit Hours		12
Summer Session		
EPID 9910	Epidemiology Research Experience	0
Credit Hours		0
Year 2		
Fall		
EPID 7130	Observational Epidemiology	3
Descriptive Epidemiology Courses or Electives		6
EPID 9980	MS Thesis Research	0
Credit Hours		9
Spring		
Electives		6
EPID 7220	Analytic Epidemiology	3
EPID 9980	MS Thesis Research	0
Credit Hours		9
Total Credit Hours		42

Program String and Field of Study: PHMS_GR, EPI

Contact

To learn more about the department, visit <https://sph.tulane.edu/epid/home> (<https://sph.tulane.edu/epid/home/>).