

EPIDEMIOLOGY, M.S.

Overview

The Master of Science (M.S.) degree is designed for those who wish to acquire skills necessary for public health or biomedical research and want to focus on developing research skills for clinical research or the study of determinants of disease and other health-related outcomes. If you intend to further your study by pursuing a Ph.D. in Epidemiology, you will want to choose the M.S. rather than the M.P.H. degree.

Students will learn and develop skills in planning and conducting epidemiological studies; developing and evaluating surveillance programs; developing culturally appropriate protocols for data collection; performing data analysis, and presenting results orally and in writing. Upon graduation, students will be competitive for positions available at state health or government health departments, private industry, clinical or university settings, or application to Ph.D. programs in epidemiology.

Learning Outcomes

1. Students will formulate research questions and develop evidence-based hypotheses that are testable with quantitative data.
2. Students will develop protocols for primary data collection and for documentation of secondary data analyses.
3. Students will synthesize and critically evaluate public health literature.
4. Students will choose and apply appropriate quantitative analysis methods to answer a specific research question using a public health dataset.
5. Students will communicate epidemiological findings effectively in oral and written formats.
6. Students will demonstrate proficiency in at least one software package (SAS, R, etc.) to manage a public health dataset.
7. Students will demonstrate proficiency in quantitative analysis of health disparities and health inequities.

Admissions

Admissions decisions are based on an evaluation of the applicant's entire file in relation to the pool of applicants that year. We also evaluate whether the applicant's needs and goals fit well with our department's strengths and resources. We review applications once a year for fall matriculation.

Applicants for graduate degree programs in Epidemiology must meet all requirements of the Graduate School (https://www.sc.edu/study/colleges_schools/public_health/apply/graduate_applicants/) for admission and the Arnold School of Public Health (https://www.sc.edu/study/colleges_schools/public_health/apply/graduate_applicants/). All applications are submitted through SOPHAS (<http://www.sophas.org/>), with the following required documents:

- Resume or CV
- Three letters of recommendation from academic and/or professional sources
- Official transcripts from **all** schools or colleges previously attended
- GPA 3.0 or higher (4.0 scale)
- GRE scores are not required

- Personal statement describing your academic and research interests and professional goals, including how you became interested in epidemiology as a career choice.
- Non-US institution transcripts must be verified by World Education Services (WES) or equivalent service. Submit course-by-course evaluation (WES ICAP).
- For those whose native language is not English, we require either a TOEFL (minimum 80) or IELTS (minimum 7.0) score.

Admission requirements include a four-year baccalaureate degree or its equivalent from an accredited institution, preferably in the arts, sciences, or medicine, and one year of college math (beyond algebra) or statistics. Prior professional work experience is considered an asset but is not a requirement.

Admitted students who do not have academic or professional experience that provides a strong understanding of the biological basis of public health are strongly encouraged to select courses that will provide this understanding.

Degree Requirements (43 Hours)

School of Public Health Core (3 Hours)

Course	Title	Credits
PUBH 700	Perspectives in Public Health	3
Total Credit Hours		3

Department Core (22 Hours)

Course	Title	Credits
BIOS 701	Concepts and Methods of Biostatistics	3
EPID 701	Concepts and Methods of Epidemiology	3
EPID 721	Clinical and Population Research Protocol Development and Implementation	2
EPID 722	Scientific Writing and Appraisal of Epidemiologic Studies	2
EPID 741	Intermediate Epidemiologic Methods	3
BIOS 757	Intermediate Biostatistics	3
BIOS 709	Basic Software for Public Health	1
BIOS 714	Introduction to MS Access for Public Health	1
BIOS 719	Advanced SAS Methods for Public Health	1
BIOS 754	Discrete Data Analysis	3
Total Credit Hours		22

Major Courses (9 Hours)

Course	Title	Credits
EPID 788	Practical Methods for Secondary Data Analysis	3
Select two other epidemiology classes from the course listing		6
Total Credit Hours		9

Elective (3 Hours)

- Electives may be chosen from courses in the University that support the overall educational goals of the student. Typically, the elective course is chosen from the list of EPID courses, in addition to the two major courses. The Faculty Advisor must approve all elective courses.

Thesis (6 Hours)

Course	Title	Credits
EPID 799	Thesis Preparation	6
Total Credit Hours		6