

EPIDEMIOLOGY, M.P.H.

Overview

Beginning in Fall 2023, the Master of Public Health (M.P.H.) in epidemiology will also be offered as a 100% asynchronous online degree program.

The mission of the Master of Public Health (M.P.H.) degree in epidemiology is to prepare students to apply epidemiologic methods and skills in a practice setting. 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.

Upon completion of the M.P.H. degree program, students will be able to:

- Apply epidemiologic methods in public health settings
- Demonstrate successful achievement of epidemiology-specific competencies, and
- Demonstrate successful achievement of M.P.H. knowledge and foundational competencies

The competencies (CEPH) or learning outcomes (SACS) are described in more detail on the department website. Note that "competencies" and "learning outcomes" are two different terms to describe the same concepts. CEPH, the accrediting body for programs and schools of public health, uses the word competencies, and SACS, the USC accrediting body, uses the phrase learning outcomes.

The foundational public health knowledge competencies and the M.P.H. foundational competencies are taught and assessed in the M.P.H. core classes. The epidemiologic-specific competencies are taught and evaluated in the epidemiology M.P.H. non-core course requirements.

Learning Outcomes

1. Students will evaluate a public health surveillance system, identify salient gaps, and methods to address them.
2. Students will interpret epidemiological data and methodological descriptions to identify the type of study design and calculate appropriate measures of association.
3. Students will compare and contrast the strengths and limitations of epidemiologic study designs (randomized trials and observational studies), including biases and methods to minimize bias.
4. Students will formulate a research question and manage and analyze data from public health administrative or surveillance data, or electronic health data repositories.
5. Students will formulate a research question, determine a study design, develop a research protocol, and design a questionnaire to address a public health issue.
6. Students will critically evaluate epidemiologic scientific literature.

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 our department's

strengths and resources well. We review applications once a year for fall enrollment.

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 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.

Students admitted to the M.P.H. program 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 (16 Hours)

Course	Title	Credits
PUBH 724	Quantitative Methods for Public Health Practice I	3
PUBH 725	Quantitative Methods for Public Health Practice II	3
PUBH 726	Qualitative Methods for Public Health Practice	3
PUBH 730	Public Health Systems, Policy, and Leadership	3
PUBH 735	Practical Applications of Public Health Planning	4
Total Credit Hours		16

Department Core (18 Hours)

Course	Title	Credits
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 709	Basic Software for Public Health	1
BIOS 719	Advanced SAS Methods for Public Health	1
BIOS 757	Intermediate Biostatistics	3
EPID 796	Integrated Learning Experience	3

EPID 798	Epidemiology Applied Practicum	3
Total Credit Hours		18

Major Courses (6 Hours)

Course	Title	Credits
EPID 730	Public Health Surveillance Systems	3
EPID 788	Practical Methods for Secondary Data Analysis	3
Total Credit Hours		6

Electives (3 Hours)

Electives may be chosen from epidemiology courses or courses in the University that support the overall educational goals of the student. The Faculty Advisor must approve all elective courses.