

Programmatic Competencies for the MS in Epidemiology

- Critique epidemiologic literature for strengths and weaknesses of the methodology;
- Discuss, from knowledge of the literature, the pathophysiology, natural history, and epidemiology in their chosen area of concentration (e.g., cardiovascular diseases, cancer, pediatric epidemiology, infectious diseases);
- Define an appropriate research question to address a public health or medical problem requiring an epidemiologic investigation;
- Select the appropriate study design to answer the research question;
- Write a study protocol, in collaboration with others, detailing the objectives and methods for an epidemiologic investigation, and specify the data needed, including data on possible confounding factors;
- Identify and know how to access sources of health data such as vital statistics records, disease registries, national surveys, and medical records. Evidence a basic knowledge of how these data are collected and their role in surveillance and disease prevention;
- Assist in the design and administration of instruments for collection of epidemiologic data for the purposes of surveillance or research;
- Use computer software for database set-up and management;
- Analyze and interpret epidemiologic data using appropriate statistical techniques under the guidance of someone with more advanced training;
- Act as a liaison between a statistical consultant and non-epidemiologist investigators;
- Give oral presentations and produce written reports on topics relevant to public health;
- Demonstrate knowledge of some of the most prominent ethical issues in the field of epidemiology.