Epidemiology Program Competencies

Epidemiology MPH Competencies

EPI-MPH 1: Describe the historical context of epidemiology.

EPI-MPH 2: Describe public health concerns in terms of magnitude, people affected, time, and location.

EPI-MPH 3: Apply basic terminology and definitions of epidemiology.

EPI-MPH 4: Calculate epidemiology measures and interpret them.

EPI-MPH 5: Identify key sources of data and data collection methodologies for epidemiologic purposes.

EPI-MPH 6: Explain the importance of epidemiology for informing scientific and ethical Principles of public health concerns.

EPI-MPH 7: Explain ethical Principles pertaining to the collection, maintenance, use, and dissemination of epidemiologic data.

EPI-MPH 8: Evaluate the strengths and limitations of epidemiologic reports.

EPI-MPH 9: Describe the Principles and limitations of public health screening programs.

Epidemiology MSPH Applied Competencies

EPI-MSPH 1: Develop a research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a research project under the guidance of senior investigators.

EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

EPI-MSPH 4: Explain the principles of designing intervention studies.

EPI-MSPH 5: Demonstrate the ability to manage epidemiologic data.

Epidemiology MSPH Clinical & Translational Science Competencies

EPI-MSPH 1: Develop a clinical and translational research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a clinical and translational research project under the guidance of senior investigators.
EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

EPI-MSPH 4: Explain the principles of designing observational studies.

EPI-MSPH 5: Demonstrate the ability to analyze epidemiologic data.

Epidemiology MSPH Pharmacoepidemiology & Comparative Effectiveness Research Competencies

EPI-MSPH 1: Develop a pharmacoepidemiology & comparative effectiveness research project that a research committee can review for scientific validity and feasibility.

EPI-MSPH 2: Conduct a pharmacoepidemiology & comparative effectiveness research project under the guidance of senior investigators.

EPI-MSPH 3: Write a manuscript reporting research background, methods, results, discussion, and conclusions to be presented to a research committee.

EPI-MSPH 4: Explain the principles of designing observational studies.

EPI-MSPH 5: Describe the principles, goals, and conduct of pharmacoepidemiology and comparative effectiveness research.

Epidemiology PhD Competencies

PhD EPI 1: Critique epidemiologic studies and reports, with regard to design choice, precision, bias, confounding, and ethical issues.

PhD EPI 2: Demonstrate expertise in the statistical basis for the analysis of epidemiologic data.

PhD EPI 3: Write the design, methods, and results of an epidemiologic study.

PhD EPI 4: Demonstrate ability to teach epidemiologic concepts to master’s and undergraduate-level students.

PhD EPI 5: Formulate novel and innovative study questions and hypotheses and test them using epidemiological methods.

PhD EPI 6: Develop a dissertation research proposal with detailed background, study design, data collection plan and analyses for carrying out an epidemiologic study.

PhD EPI 7: Conduct a dissertation research project from design through analysis and interpretation, with oral presentation of results and preparation of a publishable manuscript(s).