### MPH Core Competencies

| Course                                                                 | C1 | C2 | C3 | C4 | C5 | C6 | C7 | C8 | C9 | C10 | C11 | C12 | C13 | C14 | C15 | MS | MPH |
|-----------------------------------------------------------------------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|----|----|
| MPH 7199 - Practicum in Public Health                                 | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |
| MPH 7998 - Culminating Project in Public Health                      | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |
| BMI 5740 - Introduction to Research Informatics                      | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |
| BMI 5760 - Public Health Informatics                                  | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |
| BMI 7400 - Advanced Topics in Biomedical Data Management              | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |
| BMI 7991 - Seminars in Biomedical Informatics                         | X  | X  | X  | X  | X  | X  | X  | X  | X  | X   | X   | X   | X   | X   | X  | X  |

### MPH Specialization Competencies

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### Core (C) and Specialization (S) Competencies vs. Program Competencies - Master of Science and Master of Public Health Programs with Specialization in Biomedical Informatics

**Core (C) Competencies**

1. **MS MPH Core Competencies**
   - **1.1** Analyze infectious disease transmission and control strategies.
   - **1.2** Compare and contrast types of major domestic and international public health issues, including sources/causes of infectious/chronic diseases, transmission, risk factors, morbidity and mortality.
   - **1.3** Discuss various biostatistical and epidemiological approaches for solving public health problems.
   - **1.4** Conduct basic biostatistical/epidemiological analyses.
   - **1.5** Utilize existing knowledge sources (e.g. databases) commonly used for biomedical informatics.
   - **1.6** Discuss biostatistical/epidemiological methods, and practice areas from individual and population-based perspectives.
   - **1.7** Interpret applicable research articles.
   - **1.8** Fiscal principles for professional practice.

**Specialization (S) Competencies**

1. **MS MPH Specialization Competencies**
   - **2.1** Research data and prepare a report summarizing the data, interpreting the statistical results, and presenting the findings, limitations and conclusions.
   - **2.2** Perform basic statistical analyses.
   - **2.3** Conduct literature reviews to evaluate the state of the science regarding specific topics.
   - **2.4** Read the scientific literature in the student’s field and critique the methods and results.
   - **2.5** Write a research proposal.

**Program (P) Competencies**

1. **MS MPH Program Competencies**
   - **3.1** Apply appropriate descriptive and inferential statistical techniques to public health data and interpret results of statistical analyses in the context of public health research and evaluation.
   - **3.2** Analyze infectious disease transmission and control strategies.
   - **3.3** Discuss various biostatistical and epidemiological approaches for solving public health problems.
   - **3.4** Conduct basic biostatistical/epidemiological analyses.
   - **3.5** Utilize existing knowledge sources (e.g. databases) commonly used for biomedical informatics.
   - **3.6** Discuss biostatistical/epidemiological methods, and practice areas from individual and population-based perspectives.
   - **3.7** Interpret applicable research articles.
   - **3.8** Fiscal principles for professional practice.