East Carolina University
Department of Public Health

Master of Public Health
Competencies
ECU Master of Public Health (MPH)

- The Master of Public Health (MPH) degree is accredited by the Council on Education in Public Health (CEPH)
- Courses in the MPH program are designed to meet the criteria established by CEPH to provide appropriate public health training for its graduates
ECU Master of Public Health (MPH)

- CEPH foundational competencies and knowledge can be found at the following website:

MPH Foundational Knowledge

Profession & Science of Public Health

1. Explain public health history, philosophy and values
2. Identify the core functions of public health and the 10 Essential Services
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.
6. Explain the critical importance of evidence in advancing public health knowledge
Factors Related to Human Health

7. Explain effects of environmental factors on a population’s health
8. Explain biological and genetic factors that affect a population’s health
9. Explain behavioral and psychological factors that affect a population’s health
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities
11. Explain how globalization affects global burdens of disease
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)
MPH Foundational Competencies

Evidence-based Approaches to Public Health

1. Apply epidemiological methods to the breadth of settings and situations in public health practice
2. Select quantitative and qualitative data collection methods appropriate for a given public health context
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate
4. Interpret results of data analysis for public health research, policy or practice
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings

6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels
MPH Foundational Competencies

Planning & Management to Promote Health

7. Assess population needs, assets and capacities that affect communities’ health
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs
9. Design a population-based policy, program, project or intervention
10. Explain basic principles and tools of budget and resource management
11. Select methods to evaluate public health programs
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations
15. Evaluate policies for their impact on public health and health equity
MPH Foundational Competencies

Leadership

16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making

17. Apply negotiation and mediation skills to address organizational or community challenges
MPH Foundational Competencies

Communication

18. Select communication strategies for different audiences and sectors
19. Communicate audience-appropriate public health content, both in writing and through oral presentation
20. Describe the importance of cultural competence in communicating public health content
MPH Foundational Competencies

Interprofessional Practice

21. Perform effectively on interprofessional teams

Systems Thinking

22. Apply systems thinking tools to a public health issue
MPH Concentration Competencies

• In addition to the CEPH foundational competencies, each MPH concentration has competencies developed by the faculty to guide the public health professional development of our students.

• Your course syllabi will contain the foundational and concentration competencies that will be covered in that course.
MPH Concentration Competencies – Health Policy, Administration and Leadership

• Address inequities in the prevalence of chronic diseases in rural and minority populations using systems thinking approaches
• Examine and interpret the impact of health care costs, access, and quality policies on disadvantaged populations
• Cultivate leadership skills in strategic planning/management with a focus on reducing disparities in disadvantaged populations
• Perform financial analyses
• Develop and apply human resources management skills inclusive of diversity and disadvantaged populations
MPH Concentration Competencies – Community Health and Health Behavior

• Design a logic model to guide intervention development and data collection for program evaluation
• Develop an evaluation plan for health promotion and disease prevention interventions that address multiple levels of the socioecological framework
• Apply qualitative and quantitative data analyses to access programming needs, evaluation, or other public health issues
• Formulate a collaborative plan with a community partner to achieve common public health goals
• Design a public health project that includes a detailed itemized budget, timeline, and staff training plan for data collection
MPH Concentration Competencies - Epidemiology

• Critically evaluate public health literature through application of fundamental principles and methods of epidemiology
• Identify and implement appropriate study design, recruitment, data collection, and analyses methods to address and identify public health problems
• Identify and apply statistical methods to calculate appropriate epidemiologic measures of association including identification of confounders and effect modifiers and their use in multivariable analyses
• Perform data management, analyses, visualization, and report generation of existing public health data using SAS to inform public health decisions
• Explain epidemiologic results in terms of magnitude, precision, validity, and limitations and identify their relevance to public health guidance
### MPH Instructional Matrix

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<th>MPH Foundational Knowledge*</th>
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<td><strong>Core Courses</strong></td>
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<td>- MPH 6000 Public Health Practice</td>
<td>1, 2, 4, 5, 6, 10</td>
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<td>- MPH 6002 Ethics and Law in Public Health</td>
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<td>- MPH 6035 Interdisciplinary Rural Health</td>
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<tr>
<td>- MPH/ESTH 6010 Fundamentals of Environmental Health</td>
<td>2, 7, 8, 11, 12</td>
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<tr>
<td>- MPH 6011 Introduction to Epidemiology</td>
<td>1, 2, 3, 4, 5, 6, 10</td>
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<tr>
<td>- MPH 6013 Behavioral Sciences and Health Education</td>
<td>7, 9, 10, 12</td>
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<td>- Bios 7021 Biostatistics for Health Professionals</td>
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<td>- MPH 6020/6027/6702 Research Methods</td>
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<td>2, 3, 4</td>
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* The numbers in these columns correspond to the number of each of the MPH Foundational Knowledge and Competencies in the previous slides.