

MPH Competencies and Course Matrices

By receiving a Master of Public Health (MPH) degree from NDSU, students will be expected to attain the following public health competencies in addition to those specific to their specialization.

| | Foundational Competencies (see key below for course titles) | PH 625 | PH 704 | PH 706 | PH 712 | PH 731 | PH 741 | PH 751 |
|----|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 1 | Apply epidemiological methods to the breadth of settings and situations in public health practice | | | X | | | | |
| 2 | Select quantitative and qualitative data collection methods appropriate for a given public health context | | | Х | Х | | | |
| 3 | Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate | | | | Х | X | | |
| 4 | Interpret results of data analysis for public health research, policy or practice | | | X | X | Х | | |
| 5 | Compare the organization, structure, and function of health care, public health, and regulatory systems across national and international settings | | х | | | | | |
| 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 | | | | Х | | х | |
| 7 | Assess population health needs, assets, and capabilities that affect communities' health | | | | | | x | |
| 8 | Apply awareness of cultural values and practices to the design or implementation of public health policies or programs | | | | | | x | х |
| 9 | Design a population-based policy, program, project, or intervention. | х | | | | | Х | |
| 10 | Explain basic principles and tools of budget and resource management | | | | | | | х |

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|----|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 11 | Select methods to evaluate public health programs | | X | | | | X | |
| 12 | Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence | | Х | | | | | |
| 13 | Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes | | | | | | х | Х |
| 14 | Advocate for political, social, or economic policies and programs that will improve health in diverse populations | | X | | | | | |
| 15 | Evaluate policies for their impact on public health and health equity | x | x | | | | | |
| 16 | Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making | | х | | | | | Х |
| 17 | Apply negotiation and mediation skills to address organization or community challenges | | | | | | | х |
| 18 | Select communication strategies for different audiences and sectors | | | | X | | | X |
| 19 | Communicate audience-appropriate public health content, both in writing and through oral presentation | X | X | | X | | | |
| 20 | Describe the importance of cultural competence in communicating public health content | X | | | | | х | х |
| 21 | Perform effectively on interprofessional teams | | | | | | | х |
| 22 | Apply systems thinking tools to a public health issue | Х | Х | | | | | |

Key for Course Titles

| PH 625 | One Health |
|--------|---|
| PH 704 | Health Management and Policy |
| PH 706 | Essentials in Epidemiology |
| PH 712 | Public Health Research Methods |
| PH 731 | Biostatistics |
| PH 741 | Social and Behavioral Sciences in Public Health |
| PH 751 | Community Health Leadership |