

Student Learning Outcomes and Competencies
Master of Public Health Program

The MPH Program is dedicated to assessment of student learning and to appropriate changes in curriculum and courses whenever necessary. At the completion of the degree each student should be able to meet all the Graduate School’s Student Learning Outcomes (SLOs), the MPH SLOs, along with the MPH 12 Foundational Objectives and 22 Foundational Competencies in addition to the Emphasis Area Competencies. All courses taken for the degree are expected to meet at least one competency.

Kansas State University Graduate Student Learning Outcomes

Knowledge	Demonstrate [a] thorough understanding and/or competency in a specific area of emphasis, study, or profession.
Skills	Demonstrate the ability to apply knowledge through critical thinking, inquiry, analysis, and communication to solve problems and to produce scholarly and creative works including but not limited to design, art, performance, [and/or] original research in the form of [a] thesis or dissertation.
Attitudes and Professional Conduct	Exhibit an awareness of their responsibilities (professional integrity, ethical behavior, ability to work with diverse groups of peoples, etc.) and engage in professional conduct towards all constituent groups, including students, faculty, public, etc.

Public Health Core Courses Required of Each MPH Student

Area	Required Course
Biostatistics	MPH 701 – Fundamental Methods of Biostatistics (3 hrs)
Environmental Health	MPH 802 – Environmental Health (3 hrs)
Epidemiology	MPH 754 – Introduction to Epidemiology (3 hrs)
Health Services Administration	MPH 720 – Administration of Health Care Organizations (3 hrs)
Social and Behavioral Sciences	MPH 818 – Social and Behavioral Bases of Public Health (3 hrs)
Public Health Practice	MPH 840 – Public Health Practice (completed at end of coursework) (requirement is 6 hrs with no thesis or 3 hrs + 6 hrs thesis research)

The required courses listed above, cover the 12 Foundational Objectives and 22 Foundational Competencies needed by public health professionals listed below and on the next page.

12 Public Health Foundational Objectives and Course Taught In	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
1. Explain public health history, philosophy and values		x	x		x
2. Identify the core functions of public health and the 10 Essential Services		x			
3. Explain the role of quantitative and qualitative methods and sciences in describing and assessing a population’s health	x	x	x		
4. List major causes and trends of morbidity and mortality in the US or other community relevant to the school or program		x	x		
5. Discuss the science of primary, secondary and tertiary prevention in population health, including health promotion, screening, etc.	x	x	x		
6. Explain the critical importance of evidence in advancing public health knowledge	x	x	x		
7. Explain effects of environmental factors on a population’s health	x			x	
8. Explain biological and genetic factors that affect a population’s health			x	x	
9. Explain behavioral and psychological factors that affect a population’s health	x	x			x
10. Explain the social, political and economic determinants of health and how they contribute to population health and health inequities		x			x
11. Explain how globalization affects global burdens of disease			x	x	
12. Explain an ecological perspective on the connections among human health, animal health and ecosystem health (e.g., One Health)				x	x

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy or practice	x		x		
Public Health and Health Care Systems					
5. Compare the organization, structure and function of health systems across national and international settings		x			
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 systemic levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets and capacities that affect communities' health		x		x	
8. Apply awareness of cultural values and practices to the design, implementation, or critique of public health policies or programs					x
9. Design a population-based policy, program, project or intervention			x		
10. Explain basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss the policy-making process, including the roles of ethics and evidence		x	x	x	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	
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	
Leadership					
16. Apply leadership and/or management principles to address a relevant issue		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	FSB/IDZ=DMP 815; PHN=FNDH 880; PHPA=KIN 890				
19. Communicate audience-appropriate (i.e., non-academic, non-peer audience) public health content, both in writing and through oral presentation	FSB/IDZ=DMP 815 PHN-FNDH 880; PHPA=KIN 890				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional and/or Intersectional Practice					
21. Integrate perspectives from other sectors and/or professionals to promote and advance population health		x			x
Systems Thinking					
22. Apply a systems thinking tool to visually represent a public health issue in a format other than standard narrative	x	x	x	x	
	Application will be in MPH 840 Public Health Practice				

Student Accountability for 22 Foundational Competencies

Each student documents and address how five of the 22 MPH Foundational Competencies were attained and utilized during the applied practice experience (APE). This explanation will be in the integrated learning experience (ILE) report and presentation. These competencies are acquired from the traditional public health core knowledge areas, (biostatistics, epidemiology, social and behavioral sciences, health services administration and environmental health sciences), as well as cross-cutting and emerging public health areas.

In addition, each MPH emphasis area has its own set of unique competencies expected of students completing coursework in the emphasis area. All MPH graduate students must maintain a GPA of 3.0 or above in ALL graduate course work to remain in good standing in the program and to graduate with an MPH degree. Detailed information concerning this requirement may be found on the Graduate School website: <http://www.k-state.edu/grad/>

Food Safety and Biosecurity (FSB) Emphasis Area Competencies

FSB Competency		Description of Competency	Required Course
1	Food safety and biosecurity	Evaluate solutions appropriate for different food safety, biosecurity, and defense issues in the food production continuum.	FDSCI 730 and FDSCI 731
2	Threats to the food system	Examine specific threats to the food system and scientifically investigate how each can be prevented, controlled, and/or mitigated in the food production system.	FDSCI 730 and FDSCI 731
3	Food safety laws and regulations	Differentiate key U.S. food safety regulatory bodies and their unique legislative authorities, missions, and jurisdictions.	DMP 816
4	Food safety policy and the global food system	Analyze and distinguish how food safety and governmental biosecurity policies, globalization, and international trade cooperation influence public health.	DMP 888
5	Multidisciplinary leadership	Contrast the food safety and biosecurity technical needs of different stakeholders and make judgements as to the appropriate methods of collaboration.	DMP 815

Infectious Diseases and Zoonoses (IDZ) Emphasis Area Competencies

IDZ Competency		Description of Competency	Required Course
1	Pathogens/pathogenic mechanisms	Evaluate modes of disease causation of infectious agents.	BIOL 530 OR DMP 814 (Lecture)/ VDMP 838 (Lecture & Lab)
2	Host response to pathogens/immunology	Investigate the host response to infection.	DMP 817
3	Environmental/ecological influences	Examine the influence of environmental and ecological forces on infectious diseases.	DMP 710
4	Disease surveillance	Analyze disease risk factors and select appropriate surveillance.	DMP 710
5	Disease vectors	Investigate the role of vectors, toxic plants and other toxins in infectious diseases.	DMP 710

Public Health Nutrition Emphasis (PHN) Area Competencies

PHN Competency		Description of Competency	Required Course
1	Information literacy of public health nutrition	Inform public health practice through analysis of evidence-based policy, systems, and environmental change.	FNDH 600
2	Compare and relate research into practice	Examine chronic disease surveillance, policy, program planning and evaluation, and program management, in the context of public health nutrition.	FNDH 600
3	Population-based health administration	Critically examine population-based nutrition programs.	FNDH 600
4	Analysis of human nutrition principles	Examine epidemiological concepts of human nutrition in order to improve population health and reduce disease risk.	FNDH 600
5	Analysis of nutrition epidemiology	Describe criteria for validity in nutritional epidemiological methodology.	FNDH 844

Public Health Physical Activity (PHPA) Emphasis Area Competencies

PHPA Competency		Description of Competency	Required Course
1	Population health	Investigate the impact of physical activity on population health and disease outcomes.	KIN 612
2	Social, behavioral and environmental influences	Investigate social, behavioral and environmental factors that contribute to participation in physical activity.	KIN 610 and KIN 805
3	Theory application	Examine and select social and behavioral theories and frameworks for physical activity programs in community settings.	KIN 610 and KIN 805
4	Developing and evaluating physical activities interventions	Develop and evaluate physical activity interventions in diverse community settings.	KIN 610 and KIN 805
5	Support evidence-based practice	Create evidence-based strategies to promote physical activity and communicate them to community stakeholders.	KIN 612

MPH Culminating Experience has two requirements: Applied Practice Experience (APE) and Integrated Learning Experience (ILE)

The **Applied Practice Experience (APE)** requirement is 240 hours in a non-academic setting and is typically completed *at the end of the coursework* so that a student may apply the knowledge gained from graduate courses. In addition, the student must be in good academic standing (i.e., not on probation) as outlined in the Graduate Handbook section F, before they will be allowed participate in the APE.

The **Integrated Learning Experience (ILE)** requirement is a high quality written document about a project carried out for a non-academic public health entity, plus a public presentation, along with the oral exam. It is completed at the end of all coursework **and** completion of the APE. The written report is submitted to the graduate committee *at least two weeks* before the presentation and oral exam.

The APE and ILE requirements are met with the following (MPH 840):

- The APE (240 hours) requires delivery of at least two different portfolio products (poster, brochures, updated learning materials, website, training manuals, etc.) along with a short discussion of at least five of the 22 Public Health Foundational Competencies and how they were utilized during the APE.
- The ILE requires a high quality written document met with the following:
 1. A written document/report of the project carried out in a non-academic setting and oral exam (which includes the oral presentation); **or**
 2. Six credit hours of public health thesis research and three credit hours (180 hours) of APE (MPH 840), as explained above. If completing a thesis, the research should be focused on population-based health questions rather than on basic research in a laboratory. This does not preclude laboratory analyses of data gathered in populations of animals or humans. A thesis completed as partial fulfillment for the MPH degree must be accepted by the Graduate School, becomes a single-authored publication and contributes to the body of knowledge in public health.

Upon completion of the oral exam and all edits have been made to the ILE document or thesis, the ILE is submitted to the MPH Program office along with all APE portfolio products. The thesis is submitted to K-REx.

Summary

Requirement	Credit Requirement	Total
MPH Core Courses required by all emphasis areas	15-17 hours	15-17 credit hours
Emphasis area courses	19-21 hours	19-21 credit hours
Applied Practical Experience (or Thesis and APE) and ILE	6-9 hours	6-9 credit hours
Total required for MPH degree		42 credit hours

Outline of MPH Course – Follow the sequence below depending on the semester you begin.*

Year 1, Fall, Spring & Summer Semesters Complete 18 credit hours	Inclass option	Online option	Year 2, Fall Semester – 9 credits
• MPH 701 Funda Methods of Biostatistics (3 hrs)	Fall	Spring	• Finish emphasis area required courses (9 hrs)
• MPH 754 Introduction to Epidemiology (3 hrs)	N/A	Fall	• Start planning for Applied Practical Experience (APE)
• MPH 802 Environmental Health (3 hrs)	Spring	Summer	• Attend MPH Meeting for MPH 840 (APE orientation)
• MPH 720 Admin of Health Care Orgs (3 hrs)	Spring	Fall	Year 2, Spring Semester – 9 credits
• MPH 818 Soc/Behav Bases of Public Health (3 hrs)	N/A	Spring	• Finish emphasis area required and elective courses (9 hrs)
• Emphasis area required courses (3 or 6 hrs)	Your choice		• Finish up plans for MPH 840 and turn in signed form
• Select Committee and prepare Program of Study (POS)			Year 2, Summer Semester – 3 or 6 credits
POS required after completion of 9 hrs			• Enroll in MPH 840 for 6 hrs for summer graduation or if graduating a different semester, enroll in only 3 hrs
K-State requires that the semester you plan to graduate you must be enrolled in at least 1 credit hour			• Enroll in MPH 840 for 3 hrs or any 1 hr class

*suggested

At the completion of all degree requirements, MPH students will be expected to meet the following:

- **Integration.** Students will have demonstrate their ability to integrate knowledge and skills to solve problems and to produce scholarly work in a culminating experience in the form of a thesis and/or high quality written document with a community-based field project.