

**2.6 REQUIRED COMPETENCIES. FOR EACH DEGREE PROGRAM AND AREA OF SPECIALIZATION WITHIN EACH PROGRAM IDENTIFIED IN THE INSTRUCTIONAL MATRIX, THERE SHALL BE CLEARLY STATED COMPETENCIES THAT GUIDE THE DEVELOPMENT OF DEGREE PROGRAMS. THE SCHOOL MUST IDENTIFY COMPETENCIES FOR GRADUATE PROFESSIONAL PUBLIC HEALTH, OTHER PROFESSIONAL AND ACADEMIC DEGREE PROGRAMS AND SPECIALIZATIONS AT ALL LEVELS (BACHELOR’S, MASTER’S AND DOCTORAL).**

2.6.a. Identification of a set of competencies that all graduate professional public health degree students and baccalaureate public health degree students, regardless of concentration, major or specialty area, must attain. There should be one set for each graduate professional public health degree and baccalaureate public health degree offered by the school (e.g., one set each for BSPH, MPH and DRPH).

**The MPH Core Curriculum**

The Masters in Public Health is the cornerstone of public health practice. As such, graduates from the MPH program at the SPH need to have the skills, knowledge, attitudes and values that will serve them in diverse and varied roles. This foundation is provided through the core curriculum. Students in the MPH are encouraged to complete the core curriculum in their first year as the foundation for track-specific curricula, the practicum experience and the culminating experience. The MPH core consists of six courses, comprising 15 of the total 45 credits needed to complete the MPH. As already reported in Criteria 2.3, the courses are as follows:

**Table 2.6.a.1: MPH Core Curriculum**

Course Number	# Credits	Course Name
PUBH 6001	2	Biological Concepts of Public Health
PUBH 6002	3	Bio statistical Applications for Public Health
PUBH 6003	3	Principles & Practice of Epidemiology
PUBH 6004	2	Environmental & Occupational Health in a Sustainable World
PUBH 6006	3	Management & Policy Approaches to Public Health
PUBH 6007	2	Social & Behavioral Approaches to Public Health

PUBH 6001, PUBH 6004 and PUBH 6007 provide the foundational knowledge for understanding the major contributors to both health and disease. PUBH 6002 and 6003 provide students with the methodological tools needed for public health practice, and finally PUBH 6006 focuses on management and policy approaches to public health at three different levels: the system, the organization, and the group/individual level. (Also included in the core are PubH 6014, the practicum experience, and PubH 6015 the culminating experience.)

The core competencies for the MPH core courses are as follows:

**Table 2.6.a.2.: MPH Core Competencies**

*I= Introduced D= Developed M= Mastered*

	PUBH 6001	PUBH 6002	PUBH 6003	PUBH 6004	PUBH 6006	PUBH 6007
<b>Program specific competencies</b>						
1. Describe the major contributors to health and how they relate to important communicable and noncommunicable diseases in public health.	I,D			I	I	I,D
2. Describe the social, legal, ethical, economic, and political context of contemporary public health problems.	I			D	D	I
3. Describe the multidisciplinary nature of contemporary public health issues and the role that various professionals play in addressing these issues.	I			I	D	I
4. Build effective oral and written communication skills for communicating with lay and public health audiences.	I	I		I	M	I,D
5. Identify and apply appropriate statistical analytical tools for hypothesis testing (inferential statistics) and estimation.		I,D	I		I	
6. Understand the historical context of some milestone public health interventions through the past century.	I			I	I	
7. Apply descriptive techniques commonly used to summarize public health data.		I,D	I		D	I
8. Interpret the results of statistical analyses in public health and health services research literature.		I	I		D	I
9. Use epidemiological data to inform scientific, ethical, economic, and political discussions and health issues.	I	I	I,D	I	D	I
10. Synthesize relevant information in order to analyze policy implications and participate in policy development.			I	I	D	
11. Describe a public health problem in terms of magnitude, person, time and place.	I	I	I,D		M	I,D
12. Work collaboratively with decision-makers, stakeholders, and colleagues with a variety of viewpoints to achieve policy goals.					M	
13. Assess key microeconomic concepts, including supply and demand, markets, taxes and subsidies, public goods and the case for government intervention.					I	
14. Describe steps and procedures for the planning, implementation and evaluation of public health programs and interventions.					D	I,D

**Note:** The syllabi for the core courses do not include competencies, but rather a list of learning outcomes for each course.

**DRPH**

Four departments in the School offer the DrPH; however, all DrPH students are required to take the common core outlined the following table. The goals of the core curriculum are to develop students prepared to succeed at the program-specific level, obtain in depth skills in research methodologies and develop leadership qualities. Core competencies and level of development per course are provided in the table. These competencies were developed by the DrPH curriculum committee and are reviewed annually. Note: PUBH 8404 through PUBH 8412 are track-specific Seminars that are only taken by the DrPH students in that track. Therefore students only register for two of these eight courses. The other nine courses are taken by all DrPH students. A list of course numbers and names are shown in the following tables:

**Table 2.6.a.3: DrPH Core Curriculum and Competencies**

<b>Course Number</b>	<b>Course credits</b>	<b>Course Name</b>
PubH 8401	3	Foundations of PH Leadership & Practice (Seminar)
PubH 8402	2	Leadership in Public Health Practice & Policy
PubH 8404	3	Advanced Topics – Health Systems & Health Policy Research
PubH 8405	3	Advanced Health Economics Research
PubH 8406	3	Advanced Topics – Health Research/Global Health
PubH 8407	3	Advanced Topics – Health Leadership/Intern't'l Settings
PubH 8409	3	Advanced Topics – Health Comm Research
PubH 8411	3	Advanced Topics – Principles of Human Health Risk Science
PubH 8412	3	Advanced Topics – EOH Research and Practice
PubH 8416	3	Study Design & Evaluation Methods
PubH 8417	3	Qualitative Research Methods & Analysis
PubH 8418	3	Applied Statistical Analysis
PubH 8419	3	Measurement in PH & Health Services Research
PubH 8420	3	Advanced Analysis & Dissemination
PubH 8422	2	Advanced Health Care & PH Research Design
PubH 8423	1 -12	Dissertation Research

I=Introduced D=Developed M=Mastered

PUBH 8401   PUBH 8402   PUBH 8404   PUBH 8405   PUBH 8406   PUBH 8407   PUBH 8408   PUBH 8409   PUBH 8411   PUBH 8412   PUBH 8416   PUBH 8417   PUBH 8418   PUBH 8419   PUBH 8420   PUBH 8422   PUBH 8423

<b>DrPH Core Competencies</b>																	
Analyze a public health problem and determine appropriate sources of data and methods for problem identification, program planning, implementation, monitoring, and evaluation.	D	D			D	M	M	M			D	D	D	D	D	M	M
Develop and analyze hypotheses and research propositions that can be tested by appropriate quantitative or qualitative research designs and methodologies.			D	D	D	M	M	M			D	D	D	D	D	M	M
Evaluate research tools including research design, statistical analysis data collection instruments and measurement systems.			D		D	D	D	D			D	D	D	D	D	M	M
Apply epidemiological and biostatistical techniques to studies designed to assure effective practice and policy decision-making in a field within public health. Students will possess epidemiological and biostatistical concepts/techniques necessary to successfully analyze and apply the results to epidemiological research to making and implementing complex decisions in a field within public health and related to public health practice.											D		D	D	D	M	M
Design and conduct a qualitative study using appropriate theory and methods.												D					
Synthesize and evaluate research conducted by others.	I		M		I	D			D		M	M		D	M	M	M
Design strategies to accurately and effectively describe public health, economic, administrative, legal, social, political, and cultural implications of different health policy options.	I		D	D	D	D	M	D	D	I	D	D	D	D	D	D	M
Present public health data and research syntheses to scientific and professional audiences and the public.		D	M		D	D	M	I	I	I	D	D	D		D	D	M
Defend the feasibility and expected outcomes of different policy options and transform them into organizations, plans, processes, and programs.	I	D			D	D					D				M	D	M
Appraise the dynamic forces that contribute to cultural diversity and develop responsive plans and programs.		I			D	D	D	I			D		D				
Assess the determinants of health and illness, factors that contribute to health promotion and disease prevention, and factors that influence the use and cost of public health services in a population.	D		D		D	D	D	M			D				M	D	M
Describe the theory of organizational structure and its relation to professional practice.		D	D								I						
Support a culture of ethical standards of conduct in the research process and within organizations and communities.		I	I		D	D					D	D		D	M	D	M
Lead a team of diverse professionals reflecting shared values and vision to achieve specific objectives.		D						M			D						

**Table 2.6.a.4.: Core Competency Charts for other degrees**

**MHA\* Core:**

Domain	Competency	Competency Description	Proficiency Level
Leadership	Leading and managing others	Displays the ability to effectively manage individuals and teams towards achieving the goals associated with organizational excellence	Evaluation
Leadership	Ability for honest self-assessment	Exhibits the ability to assess their own strengths and weaknesses with the objective of continuously capitalizing on strengths and reducing weaknesses	Evaluation
Comm & Relationship Management	Speaking to groups	Exhibits the ability to effectively express ideas and concepts to many different types of audiences verbally	Evaluation
Comm & Relationship Management	Working in teams	Utilizes a set of team-building functions to facilitate effective group behavior	Synthesis
Business Skills and Knowledge	Solving business problems and making decisions	Possesses the ability to utilize decision making processes that leads to the selection of the most optimal course of action from a group of alternatives	Evaluation
Business Skills and Knowledge	Planning and managing projects	Demonstrate the ability to plan, organize, and manage resources to bring about the successful completion of specific project goals and objectives	Application
Professionalism	Professional and community contribution	Addresses population wellness by evaluating and implementing activities designed to improve the health and wellness of both individuals and populations	Synthesis
Professionalism	Time management	The ability to effectively manage the time of self and others with the goal of maximizing organizational effectiveness	Evaluation
Healthcare Knowledge	Healthcare personnel	Demonstrate an understanding of the breadth of healthcare personnel along with demographic, employment and salary implications	Application
Healthcare Knowledge	Standards and regulations	Demonstrate the ability to understand and apply healthcare regulations including those from governmental and non-governmental agencies and organizations	Application

\*MHA competency map is provided in the format required by CAHME.

**BS, PUBLIC HEALTH**

I=Introduced D=Developed M= Mastered

	PUBH 1101	PUBH 1102	PUBH 2110	PUBH 2112	PUBH 3130	PUBH 3131	PUBH 3132	PUBH 3133	PUBH 3135W	PUBH 4140W
<b>Program Specific Competencies</b>										
Assess the impact of historical, cultural political, environmental, behavioral, and socio-economic factors on population/community health and health status.	I	I	I	D			D	D	D	M
Describe the organization, financing, and delivery of health services and public health systems.	I				D			D	D	
Describe the underlying biological factors relating to prominent public health issues and discuss how these factors inform interventions to improve population health.	I		D	D		D	D	D		M
Critically review multiple types of research, develop an understanding of data and research, and develop and evaluate public health interventions based on available evidence.	I		I			D	D	I		M
Evaluate policy, behavioral, environmental, and systems options for addressing current public health and health care concerns.	I		I	D	D		D	D	D	M
Communicate public health concepts and analysis clearly and persuasively.	I	I	D	D	D	D	D	D	D	M
Use an interdisciplinary/integrative approach to address public health issues.	I		I			I	I	D	D	M

PUBH 1101: Introduction to Public Health & Health Services

PUBH 1102: History of Public Health

PUBH 2110: Public Health Biology

PUBH 2112: Principles of Health Education and Health Promotion

PUBH 3130: Health Services Management and Economics

PUBH 3131: Epidemiology: Measuring Health and Disease

PUBH 3132: Health and Environment

PUBH 3133: Global Health & Development

PUBH 3133W: Health Policy

PUBH 4140W: Senior Seminar

**Table 2.6.a.4.: Core Competency Charts for other degrees, (continued)**

**\*BS, Exercise Science Core Competencies**

	I=Introduced EXNS 1103	D=Developed EXNS 1110	M=Mastered EXNS 1111	EXNS 2110	EXNS 2111	EXNS 2112	EXNS 2113	EXNS 2114	EXNS 2115	EXNS 2116	EXNS 3110	EXNS 4110
<b>Department Core Competencies</b>												
<b>Goal 1: To integrate knowledge of the multiple physiologic responses to exercise (work) at the molecular, cellular, and systems levels.</b>												
a) Students will demonstrate knowledge and understanding of basic concepts of cellular and molecular physiology, human anatomy & physiology, nutrition, and psychology. [Cognitive: levels 1 and 2].		I	D	D	D	D	M	D	M	D		
b) Students will demonstrate knowledge and understanding of various physiological and behavioral mechanisms underlying the body's adaptation to exercise. [Cognitive: levels 1 and 2].		I	D	D	D	D	M			D		
c) Students will apply this knowledge and understanding in designing exercise programs for improving health, function, and performance within specific populations. [Cognitive: level 3].		I	D			D	M			D		
d) Students will organize and internalize this knowledge and understanding in adopting lifestyle choices that promote health and wellness. [Affective: levels 4 & 5; Psychomotor: levels 6 & 7].		I	D	D			M	D	M	D		
e) Students will be able to evaluate the effect of various exercise challenges (interventions) on both short- and long-term human adaptations based on their own work and by critiquing the literature. [Cognitive: level 6].				D		D						
<b>Goal 2: To develop critical thinking via the process of scientific inquiry and its translation into human health and function. To integrate knowledge of the multiple physiologic responses to exercise (work) at the molecular, cellular, and systems levels.</b>												
a) Students will demonstrate knowledge and understanding of basic research and statistical methods. [Cognitive: levels 1 and 2].	I							D	D			M
b) Students will be able to interpret descriptive data, as well as basic findings from experimental and from observational studies. [Cognitive: level 2].	I				D							M
c) Students will synthesize this knowledge and understanding by designing studies to test specific hypotheses. [Cognitive: level 5].	I											M
d) Students will evaluate and critique the current scientific literature for quality of evidence and for relevance to theory and practice. [Cognitive: level 6].				I				D	D			M
<b>Goal 3: To develop effective oral and written communication skills, as well as ethical and complex decision making abilities.</b>												
a) Students will demonstrate the ability to separate complex scientific concepts into components in order to communicate effectively with different lay audiences in the community. [Cognitive: level 4].									D	D	M	M
b) Students will demonstrate the ability to synthesize (build) & defend an argument based on diverse elements. [Cognitive: levels 5 & 6].	I									D		
c) Students will organize and defend a comprehensive thesis or project based on sound evidence and theory. [Cognitive: levels 5 and 6].												M
d) Students will apply ethical principles to case studies and to real-life experiences and issues presented in their courses and in their practica/internships. [Cognitive: level 3; Affective: levels 3 and 4].										D	M	
e) Students will understand and apply basic skills of career development.	I											M
<b>Goal 4: To engage in practical learning experiences in order to facilitate the translation and application of exercise science and nutrition science to the community.</b>												
a) Students will integrate scientific theory and principles through laboratory and community-based experiences. [Cognitive: levels 4&5].		I	D	D	D	D	M			D	M	
b) Students will successfully complete a practical experience (or internship) within a public or private sector of industry, government, or community. [Affective: levels 3 & 4].											M	
c) Students will create a product (e.g., thesis, training manual; curriculum; web site) for use in promoting some aspect of health, function, or performance among the community. [Cognitive: level 5].												M
EXNS 1103: Professional Foundations in Exercise Science	ESNS 2115: Nutrition Sciences II											
EXNS 1110: Applied Anatomy Physiology I	EXNS 2116: Exercise and Health Psychology											
EXNS 1111: Applied Anatomy Physiology II	EXNS 3110: Internship											
EXNS 2110: Prevention & Care of Injury	EXNS 4110: Current Issues in Exercise Science											
EXNS 2111: Exercise Physiology I	EXNS 3121: Medical Issues in Sports Medicine											
EXNS 2113: Kinesiology	EXNS 3125: Athletic Training Practicum											
EXNS 2114: Nutrition Sciences I												

*\*Note- the BS, Exercise Science is currently being revised to comply with new General Education Requirements at the University level. See Criteria 2.10 for additional explanation.*

**2.6.b. Identification of a set of competencies for each concentration, major or specialization (depending on the terminology used by the school) identified in the instructional matrix. The school must identify competencies for all degrees, including graduate public health professional degrees, graduate academic degrees, graduate other professional degrees, as well as baccalaureate public health degrees and other bachelor's degrees.**

Over the past three years, Dean DeLoia has provided faculty training and guidance on the development of competencies related to program mission, vision and values and to student learning outcomes. Competency charts for each specific program are available in **ERF 2.6.1.: Curricular Maps: Program-Specific**. Where departments offer multiple tracks for a degree, we have included department-specific competencies.

**2.6.c. A matrix that identifies the learning experiences (e.g. Specific course or activity within a course, practicum, culminating experience or other degree requirement) by which the competencies defined in Criteria 2.6.a and 2.6.b. are met. If these are common across the school, a single matrix for each degree will suffice. If they vary, sufficient information must be provided to assess compliance by each degree and concentration. See CEPH Data Template 2.6.1.**

CEPH Data Template 2.6.1, outlining competencies by program, is provided as indicated above (see 2.6.b). The syllabi for required coursework include specific learning outcomes mapped to each applicable competency. Syllabi are included in **ERF 2.6.c.: Syllabi: Required Courses**. The Schedule of classes for the last three academic years is also included in **ERF 2.6.c.: Schedule of Classes**.

**2.6.d. An analysis of the completed matrix included in Criterion 2.6.c. If changes have been made in the curricula as a result of the observations and analysis, such changes should be described.**

Over the past several years, program directors and other faculty have been meeting to review curricula and develop curricular maps for all degree programs. As a result, every program now has a detailed curricular map, with competencies and learning objectives detailed, as well as the level to which a concept is explored (introduce, develop or master). We have also changed the syllabus template used for the School, so that all required course syllabi must include learning objectives mapped to the program competencies.

Review of the core is under the domain of the School's Curriculum Committee. In summer 2012, we created working groups to evaluate the MPH core. As a result of these groups, we deleted two two-credit core classes; PUBH 6005 (Policy Approaches to Public Health) and PUBH 6008 (Management Approaches to Public Health) and added PUBH 6006, a new, three-credit course (Management and Policy Approaches). This course is currently being reviewed by the Department of Health Policy and Management's Curriculum Committee. This past year we have had three working groups evaluating the following criteria: 1) qualitative methods requirements; 2) quantitative methods courses; and 3) undergraduate offerings.

In short, curricular review and revision is an ongoing and continuous process. Each department and the School have a curriculum committee that routinely reviews course offerings, course evaluations and programmatic objectives and competencies. As needed, we add *ad hoc* working groups to focus on specific topics (as noted above).

An example of an ad hoc group is the MPH@GW advisory committee. This group was formed when we decided to launch the online program, which spans all departments. This group met throughout the first two years of the program to help design curricular goals, discuss faculty resource issues and help develop the practicum and culminating experiences. Now that we have an Assistant Dean for MPH programs, this group will be dissolved and be replaced with a permanent standing committee for the MPH program that was approved by the Faculty Assembly in September, 2015. There are currently no other education-focused *ad hoc* committees.

#### **2.6.e. Description of the manner in which competencies are developed, used and made available to students.**

##### **MPH Core Competencies**

The MPH core has traditionally been under the domain of the School-wide Curriculum Committee, which is charged with periodic review of the core classes and the core content. In addition to these periodic reviews, the Curriculum Committee also responds to workforce needs in the field and implements curricula changes accordingly. Moreover, the entire MPH core was reviewed by seven independent working groups in 2013. The results of this review were to: 1) to combine two two-credit courses into one three-credit course, thus opening up an additional credit for elective coursework; and 2) to change the focus of PUBH 6001 (*Biological Basis of Disease*) to include more depth in the major determinants of health in the developed and developing worlds. Starting in fall of 2015, the new Assistant Dean of MPH Programs will oversee an MPH advisory group, which will assume responsibility for the core and submit any requested revisions to the school-wide curriculum committee, thus providing another layer of consistent review for the MPH core courses.

##### **Program-specific Competencies**

Competencies for each program were developed over the past two academic years at the program or department level. Prior to this, programs did not have a curricular map. The Associate Dean for Academic and Student Affairs conducted multiple workshops for program directors and departmental curriculum committees regarding how to develop Mission, Vision, Values and Competencies for the various MPH tracks. Following these workshops, the departmental Curriculum Committees then developed the competencies and curriculum maps for each program. Once developed, the school-wide Curriculum Committee updated the syllabus template to include everything from mapping of each core and program-specific course-learning objective to programmatic competencies. For programs not housed in a single department, working groups developed the competencies and curriculum maps. Now



that the curriculum maps and competencies are developed, departmental curriculum committees review on an annual basis.

Each department has a curriculum committee that reviews the programmatic level curriculum, conducts curricular mapping, and review. All departments also have monthly faculty meetings to discuss general business and end of the school year curriculum review. In addition, there is an undergraduate committee for the BS, Public Health program and another for the BS, Exercise Science programs.

Once every five-to-seven years, each department undertakes a major self-study review, which consists of: 1) a year long process of departmental review and writing a self-study document; 2) review by an external review committee, including a written report of findings and suggestions; 3) departmental written response to the site visitors report; and 4) Dean's comments and full report presented to the Provost.

All program descriptions (program guides), with stated competencies, are available to students through our website.

#### **2.6.f. Description of the manner in which the school periodically assesses changing practice or research needs and uses this information to establish the competencies for its educational programs.**

Members of the school are actively engaged in ASPPH activities, dean's retreats, working groups, etc. to stay informed of trends in public health practice and education. Significant ASPPH reports are discussed with school leadership to determine our response. The school has a research committee that meets monthly to advise the dean on research resources, faculty development and any challenges. The Executive Advisory Committee meets monthly to discuss important matters affecting the school.

#### **2.6.g. Assessment of the extent to which this criterion is met and an analysis of the school's strengths, weaknesses and plans relating to this criterion.**

This criterion is met.

##### **Strengths:**

- Every program and track has a detailed curricular map.
- There are many levels of programmatic and curricular review.
- We have established collaborative and inclusive processes for review and strategic planning.
- Descriptions of competencies are easily available to both students and faculty.
- Competencies and curriculum are informed by professional and academic standards of professional organizations.

##### **Challenges:**

- Changing the culture of departmentally driven MPH tracks to a more integrated, school-wide approach to the MPH degree.

**Future Plans:**

- Consider and implement working group proposals for improvements to the qualitative and quantitative methods offerings and sequencing.
- Re-evaluate the core curriculum in light of the new ASPPH framing documents.
- Continue to refine the curricular maps for individual programs.