

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 (bachelors, masters, and doctoral).

Required Documentation

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 core public health competencies expected of all graduates of the MPH program are listed below.

1. Monitor health status to identify and solve community health problems
2. Diagnose and investigate health problems and health hazards in the community using an ecological framework
3. Inform, educate and empower people about health issues
4. Mobilize community partnerships and action to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Use laws and regulations that protect health and ensure safety
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Evaluate effectiveness, accessibility and quality of personal and population-based health services
9. Conduct research for new insights and innovative solutions to health problems
10. Communicate effectively with constituencies in oral and written forms

The MPH core competencies are adapted from the Ten Essential Public Health Services. Graduates of the MPH program are expected to demonstrate a level of competence appropriate for entry to the public health workforce.

2.6.b Identification of a set of competencies for each concentration, major, or specialization 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 bachelors degrees.

These competencies are provided in the matrices under 2.6.c below.

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.

The fundamental knowledge and skills required to meet the MPH core competencies are acquired through the MPH core courses, internships and other integrative opportunities. Table 2.6.c.1 is a matrix that identifies the relationships between MPH core competencies and learning experiences. Specific learning objectives of each course are listed in the course syllabi. Syllabi are available on the MPH website at <http://mph.ufl.edu/courses-curriculum/core-courses/> and in the Resource File.

In addition to learning experiences that occur through the core courses, MPH students have multiple opportunities to strengthen their understanding of selected competencies through their internships and the Seminar on Contemporary Public Health Issues, which includes final written and oral presentations and serves as the MPH culminating experience.

A series of matrices of MPH concentration competencies and contributing learning experiences are shown in Tables 2.6.c.2 – 2.6.c.8. The Resource File includes competencies and learning experiences for the College's MS, PhD, baccalaureate, and other professional degrees (Tables 2.6.c.9 – 2.6.c.29). In all of the tables, P indicates the competency is primarily gained in the course or experience and R indicates the competency is reinforced in the course/experience.

Table 2.6.c.1 MPH Core Competencies and Learning Experiences

MPH Core Competencies	Learning Experiences						
	PHC 6050/6052	PHC 6001	HSA 6114	PHC 6313	PHC 6410	PHC 6601	PHC 6946
Monitor health status to identify and solve community health problems	P	P	R	P	P	R	R
Diagnose and investigate health problems and health hazards in the community using an ecological framework	P	P	R	P	P	R	R
Inform, educate and empower people about health issues			R	P	P	R	R
Mobilize community partnerships and action to identify and solve health problems			R	R	R	R	R
Develop policies and plans that support individual and community health efforts		R	P	R	P	R	R
Use laws and regulations that protect health and ensure safety			P	P		R	R
Link people to needed personal health services and assure the provision of health care when otherwise unavailable			P			R	R
Evaluate effectiveness, accessibility and quality of personal and population-based health services	P	P	P	R	R	R	R
Conduct research for new insights and innovative solutions to health problems	P	P		R	R	R	R
Communicate effectively with constituencies in oral and written forms	P	P	P	P	P	P	P

Courses:

PHC 6050 Statistical Methods for Health Sciences I

PHC 6052 Introduction to Biostatistical Methods

PHC 6001 Principles of Epidemiology

HSA 6114 Introduction to the US Healthcare System

PHC 6313 Environmental Health Concepts in Public Health

PHC 6410 Psychological, Behavioral, and Social Issues in Public Health

PHC 6601 Seminar in Contemporary Public Health Issues

PHC 6946 Public Health Internship

Table 2.6.c.2 MPH Biostatistics Concentration Competencies and Learning Experiences

Biostatistics Concentration Competencies	Learning Experiences								
	PHC 6052	PHC 6053	PHC 6937	PHC 6055	PHC 6080	PHC 6081	PHC 6000	PHC 6601	PHC 6946
Describe the role of biostatistics in public health research	P	P	P	R	R	R	R	P	P
Interpret and critique analyses found in public health studies	P	P	P	R		R	P	R	R
Use appropriate statistical methodology to address public health problems	P	P	P	R		R	P	R	R
Communicate effectively with investigators in other areas of public health								P	P
Develop presentations based on statistical methods and analyses for both public health professionals and educated lay audiences	R	R	R	P	P	P	R	P	R
Apply software to conduct statistical analyses	P	P	P	P	P	P		P	R

Courses:

PHC 6052 Introduction to Biostatistical Methods
 PHC 6053 Regression Methods for the Health and Life Sciences
 PHC 6937 Survival Analysis
 PHC 6055 Biostatistical Computing Using R
 PHC 6080 SAS for Public Health Data
 PHC 6081 SAS for Public Health Analysis
 PHC 6000 Epidemiology Research Methods I
 PHC 6601 Seminar on Contemporary Public Health Issues
 PHC 6946 Public Health Internship

Table 2.6.c.3 MPH Environmental Health Core Competencies and Learning Experiences

Environmental Health Concentration Competencies	Learning Experiences						
	PHC 6313	VME 6602	VME 6607	PHC 6702	PHC 6937	PHC 6601	PHC 6946
Describe to specific communities or general populations the direct and indirect human and ecological effects of major environmental agents	P	P	P	P	R	R	R
Describe genetic, physiological and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards	R	P		R	R	R	R
Explain the health effects and general mechanisms of toxicity in eliciting a toxic response to exposure to various environmental toxicants	P	P		R	R	R	R
Specify approaches for assessing, preventing, and controlling environmental hazards that pose risks to human health and the environment	P	R	P	P	R	R	R
Develop a testable model of an environmental insult or design a way to evaluate an environmental insult	R		P	R	R	R	R

Courses:

PHC 6313 Environmental Health Concepts in Public Health

VME 6602 General Toxicology

VME 6607 Human Health Risk Assessment

PHC 6702 Exposure Measurement and Assessment

PHC 6937 Health, Risk & Crisis Communication in Public Health

PHC 6601 Seminar in Contemporary Public Health Issues

PHC 6946 Public Health Internship

Table 2.6.c.4 MPH Epidemiology Concentration Competencies and Learning Experiences

Epidemiology Concentration Competencies	Learning Experiences								
	PHC 6001	PHC 6000	PHC 6011	PHC 6002	PHC 6003	PHC 6052	PHC 6053	PHC 6601	PHC 6946
Identify and understand the historical context of epidemiology, epidemiologic terminology, study designs and methodology	P	R	R	R	R	R	R		
Identify key sources of epidemiologic data and data collection methodology	P	R	R	R				R	R
Demonstrate ability to analyze and interpret epidemiologic data	P	R	R	R	R	R	R	R	R
Explain and communicate current epidemiologic and public health problems for informing scientific, ethical, economic and political discussions of health problems	P	R	R	R	R	R	R	R	R
Apply epidemiologic knowledge and methodology in a substantive area or applied setting		P	R					R	R

Courses:

PHC 6000 Epidemiological Research Methods I

PHC 6001 Principles of Epidemiology

PHC 6002 Epidemiology of Infectious Diseases

PHC 6003 Epidemiology of Chronic Disease I

PHC 6011 Epidemiological Research Methods II

PHC 6052 Introduction to Biostatistical Methods

PHC 6053 Regression Analysis for the Life Sciences

PHC 6601 Seminar on Contemporary Public Health Issues

PHC 6946 Public Health Internship

Table 2.6.c.5 MPH Public Health Management and Policy Concentration Competencies and Learning Experiences

PHMP Concentration Competencies	Learning Experiences								
	HSA 6114	PHC 6104	HSA 5174	HSA 6115	HSA 6152	PHC 6103	PHC 6421	PHC 6601	PHC 6946
Apply principles and methods of strategic and program planning in public health contexts	R	P		R		P	R	R	R
Effectively manage public health programs and projects	R		R	P		P	R	R	R
Identify, retrieve, summarize, manage and communicate public health information	R	P		R	R	R		P	P
Apply principles and theory of budget preparation, managerial accounting, and financial management to organizations in the health sector			P					R	R
Demonstrate the principles of problem solving	R	R		P		P	R	P	P
Monitor and evaluate programs for their effectiveness and quality		P		R	R			R	R
Apply principles and methods of health policy development and analysis to key public health issues	R	R			P		P	R	R

Courses:

HSA 6114 Introduction to the US Health Care System

PHC 6104 Evidence-based Management of Public Health Programs

HSA 5174 Fundamentals of Healthcare Finance

HSA 6115 Introduction to Management of Health Services Organizations

PHC 6103 Systems Thinking for Public Health

PHC 6421 Public Health Law and Ethics

HSA 6152 Health Policy

PHC 6601 Seminar in Contemporary Public Health Issues

PHC 6946 Public Health Internship

Table 2.6.c.6 MPH Social and Behavioral Sciences Concentration Competencies and Learning Experiences

SBS Concentration Competencies	Learning Experiences							
	PHC 6410	PHC 6251	PHC 6146	PHC 6700	PHC 6405	PHC 6195	PHC 6946	PHC 6601
Critically describe and evaluate the state of public health social and behavioral science research and literature	P		R	P	R	R	R	R
Apply social and behavioral science theories and concepts to public health problems	P		R		P	R	R	R
Describe and apply the social ecological framework to public health problems	P	P	P		P		R	R
Understand and apply the principles of community participation in public health research and interventions.	P	P				P	R	R
Demonstrate the knowledge and skills necessary to conduct social and behavioral science research	P	P	P	P	R	P	R	R
Demonstrate an understanding of health disparities in the U.S. and the underlying role of power differentials to disparities	P	P	P		R	R	R	R
Demonstrate knowledge and skills needed to design and implement a public health information campaign.						P	R	R
Demonstrate communication skills key to public health workforce participation and advocacy			P		R	R	R	P

Courses:

PHC 6410 Psychological, Social, and Behavioral Issues in Public Health
 PHC 6146 Public Health Program Planning and Evaluation
 PHC 6700 Social and Behavioral Research Methods
 PHC 6405 Theoretical Foundations of Public Health

PHC 6195 Health Information for Diverse Populations
 PHC 6946 Public Health Internship
 PHC 6601 Seminar in Contemporary Public Health Issues

Table 2.6.c.7 MPH Sample Public Health Practice Concentration Competencies and Learning Experiences

PHP (PHMP and SBS) Concentration Competencies	Learning Experiences										
	PHC 6104	HSA 6115	HSA 6152	HSA 5174	PHC 6103	PHC 6251	PHC 6946	PHC 6421	PHC 6937	PHC 6601	PHC 6946
Apply principles and methods of strategic and program planning in public health contexts	P	R			P			R		R	R
Effectively manage public health programs and projects		P		R	P			R		R	R
Identify, retrieve, summarize, manage and communicate public health information	P	R			R					P	P
Apply principles and theory of budget preparation, managerial accounting, and financial management to organizations in the health sector				P						R	R
Demonstrate the principles of problem solving	R	P			P			R		P	P
Monitor and evaluate programs for their effectiveness and quality	P	R	R							R	R
Apply principles and methods of health policy development and analysis to key public health issues	R		P					P		R	R
Describe and apply the social ecological framework to public health problems						P	R				
Understand and apply the principles of community participation in public health research and interventions						P	R		P		
Demonstrate the knowledge and skills necessary to conduct social and behavioral science research						P	R		P		

PHP (PHMP and SBS) Concentration Competencies	Learning Experiences										
	PHC 6104	HSA 6115	HSA 6152	HSA 5174	PHC 6103	PHC 6251	PHC 6946	PHC 6421	PHC 6937	PHC 6601	PHC 6946
Demonstrate an understanding of health disparities in the U.S. and the underlying role of power differentials to disparities						P	R		R		
Demonstrate knowledge and skills needed to design and implement a public health information campaign.							R		P		
Demonstrate communication skills key to public health workforce participation and advocacy							R		R		

Courses:

- HSA 6114 Introduction to the US Health Care System
- PHC 6104 Evidence-based Management of Public Health Programs
- HSA 5174 Fundamentals of Healthcare Finance
- HSA 6115 Introduction to Management of Health Services Organizations
- PHC 6103 Systems Thinking for Public Health
- PHC 6421 Public Health Law and Ethics
- HSA 6152 Health Policy
- PHC 6601 Seminar in Contemporary Public Health Issues
- PHC 6946 Public Health Internship

Table 2.6.c.8 MPH Public Health Practice Online Concentration Competencies and Learning Experiences

PHP Online Concentration Competencies	Learning Experiences										
	PHC 6519	PHC 6183	PHC 6937	PHC 6146	PHC 6937	PHC 6002	PHC 6003	PHC 6104	HSA 6115	PHC 6601	PHC 6946
Identify and understand the historical context of epidemiology, epidemiologic terminology, study designs and methodology						P	P			R	R
Demonstrate ability to analyze and interpret epidemiologic data						P	P			R	R
Explain and communicate current epidemiologic and public health problems for informing scientific, ethical, economic, and political discussions of health problems						P	P			R	R
Apply social and behavioral science theories and concepts to public health problems			P	P	P					R	R
Describe and apply the social ecological framework to public health problems			P	R						R	R
Understand and apply the principles of community participation in public health interventions			P	R	R					R	R
Demonstrate an understanding of health disparities in the US and the underlying role of power differentials to disparities			P	P	R					R	R
Demonstrate knowledge and skills needed to design and implement a public health information campaign			R	R	P					R	R
Demonstrate communication skills key to public health workforce participation and advocacy					P					R	R
Apply principles and methods of strategic and program planning in public health contexts				P						R	R

2.6 Required Competencies

PHP Online Concentration Competencies	Learning Experiences										
	PHC 6519	PHC 6183	PHC 6937	PHC 6146	PHC 6937	PHC 6002	PHC 6003	PHC 6104	HSA 6115	PHC 6601	PHC 6946
Effectively manage public health programs and projects								R	P	R	R
Identify, retrieve, summarize, manage and communicate public health information					P	R	R	P	R	R	R
Demonstrate the principles of problem solving and crisis management		P								R	R
Monitor and evaluate programs for their effectiveness and quality								P	P	R	R
Describe to specific communities or general populations the direct and indirect human and ecological effects of major environmental agents	P	P								R	R
Describe genetic, physiological, and psychosocial factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards		P								R	R
Specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and the environment	R	P								R	R

Courses:

PHC 6519 Zoonotic Diseases in Humans and Animals
 PHC 6183 Disaster Preparedness and Emergency Response
 PHC 6937 Community Assessment and Partnerships
 PHC 6146 Public Health program Planning
 PHC 6937 Health, Risk and Crisis Communication
 PHC 6002 Epidemiology of Infectious Diseases
 PHC 6003 Epidemiology of Chronic Diseases
 PHC 6104 Evidence-based Management of Public Health Programs

HSA 6115 Introduction to management of Health Services Organizations
 PHC 6601 Seminar in Contemporary Public Health Issues
 PHC 6946 Public Health Internship

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.

The matrices presented in Criterion 2.6.c represent an ongoing process of self-assessment that is accompanied by data on achievement of competencies. Each year, during the fall meeting of the Public Health Executive Committee, summary tables of preceptor and student assessments of achievement of competencies are shared with the chairs and concentration coordinators. Results associated with the MPH core competencies are discussed and any necessary modifications of curricula are identified. Currently, analysis of the 2012-2013 data, which was supplemented by data from alumni and employers, suggested that an examination of the learning experiences associated with three of the competencies should be undertaken. This review by the concentration coordinators, the director of public health programs, and the associate dean for educational affairs is underway in fall 2013 and described in more detail under Criterion 2.7.

Summaries of achievement of concentration-specific competencies are reviewed each fall by the faculty of each concentration. Curricular changes that have been made in recent years include:

Biostatistics: Development of new courses that focus more on application and computational skills and less on statistical theory.

Environmental Health: Development of two clear tracks for elective courses: toxicology and infectious disease.

Public Health Management and Policy: Development of two new core courses: 1) systems thinking and 2) public health law and ethics. In fall 2013, the concentration is considering a proposal for two tracks – one on policy and the other on management.

Social and Behavioral Science: A change in concentration core course sequencing to assure that appropriate foundations are acquired before moving to intermediate and advanced courses.

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

MPH

The MPH core competencies were adapted from the Ten Essential Public Health Services, developed by several agencies within the U.S. Public Health Service to expand upon the three core functions of public health — assessment, policy development and assurance. Three modifications were made to the 10 essential services to accommodate the MPH program.

- Workforce development is an essential service of public health, but we did not include it in our list of competencies. Within our program it is addressed as one of several important health policy issues. Students also have the opportunity to engage with workforce development issues through assistantships and internships with the Rural South Public Health Training Center, described under Criterion 3.3.

2.6 Required Competencies

- The language in Competency 6 was modified from a focus on enforcing laws and regulations to applying or using them. The modification reflects our intent to provide workforce entry-level competence to MPH graduates.
- Competency 10, which highlights written and oral communication, is not one of the essential public health services. It is included in our set of MPH competencies because our faculty believe that competency in communication is critical for a successful career in public health.

The MPH core competencies were developed over a two-year period (2007-2008) by the Public Health Executive Committee, which consists of faculty members from each concentration. The competencies were then reviewed by all public health faculty and revisions were made until consensus was achieved. Initially, the committee attempted to develop our core competencies from the recommendations of the Association of Schools of Public Health (ASPH) Education Committee Core Competency Development Project. However, it was difficult to distinguish between some of those competencies and the learning objectives in the core courses. Since the essential services are central to the practice of public health, and a variety of skills and knowledge identified in the ASPH recommendations are required to deliver them, we decided that they would be appropriate targets for our educational activities. This decision allowed us to use the ASPH recommendations as the learning objectives for our core courses and to form our curricula consistent with contemporary standards in the field.

During the January 31, 2012 Public Health Executive Committee meeting, the MPH core competencies were reviewed and discussed. The Committee agreed that evidence at hand, including UF MPH job placements, student satisfaction, feedback from preceptors and employers, and the continuing relevance of the 10 essential services, which now serve as the basis for National Public Health Performance Standards (<http://www.cdc.gov/nphsp/essentialServices.html>), suggested that the MPH core competencies continue to be relevant and appropriate for our program.

The MPH concentration-specific competencies were developed by the faculty members of each concentration from standards in each discipline. Students who choose the Public Health Practice concentration work with their faculty advisors to develop a set of competencies specific to the skills they have chosen to acquire. These competencies are selected from the concentrations they are combining for their MPH programs. The concentration competencies were reviewed by the faculty in each concentration during spring and summer 2012.

In the College, competencies are used to guide student advising, promote student involvement in educational plans, assess students' accomplishments during internships, and guide evaluations of the quality of instructional programs via alumni and employer feedback.

The MPH core and concentration-specific competencies are in the MPH Student Handbook (<https://phhp-mph.sites.medinfo.ufl.edu/files/2013/08/MPHStudentHandbook20132014.pdf>) and posted on the MPH website at the following locations:

MPH Core Competencies: <http://mph.ufl.edu/programs/oncampusprograms/master-of-public-health/>

Biostatistics: <http://mph.ufl.edu/courses-curriculum/concentrations/biostatistics/>
Environmental Health: <http://mph.ufl.edu/courses-curriculum/concentrations/environmental-health/>
Epidemiology: <http://mph.ufl.edu/courses-curriculum/concentrations/epidemiology/>
Public Health Management and Policy: <http://mph.ufl.edu/courses-curriculum/concentrations/managementpolicy/>
Social and Behavioral Sciences: <http://mph.ufl.edu/courses-curriculum/concentrations/socialbehavioralsciences/>
Public Health Practice online: <http://online.mph.ufl.edu/courses/mph-competencies/>

New students are informed about the location, rationale and importance of the competencies during a session of PHC 6601 Seminar in Contemporary Public Health Issues. The session is offered once in each of the fall and spring semesters and students are required to attend the session early in their programs. Also, during that session, students are introduced to the MPH Portfolio, described under criterion 2.7.a, a means of tracking achievement of competencies.

Other Instructional Programs

Development of competencies in other instructional programs is guided by academic, professional and accreditation standards of the discipline. In 2012-13, every instructional program in the College reviewed and, as necessary, revised their competencies and the learning experiences that contribute to them. These reviews were led by program directors in collaboration with program faculty. Competencies are communicated to students during new student orientations, in handbooks and other resource materials, and on program websites. In addition, in response to Southern Association of Colleges and Schools (SACS) criteria, the University requires that every academic program identify and track student learning outcomes on an annual basis. Copies of the Academic Assessment Plans of each instructional program are in the Resource File.

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

Self-study requirements provide regular opportunities to reconsider competencies and curricular changes. As indicated above, the review of achievement of MPH core competencies was supplemented in 2013 by data collected from alumni and employers. These data, in conjunction with data from students and preceptors, suggested a review of three of the learning experiences associated with three of the competencies, as described under criterion 2.7.e.

Faculty are involved in research in their professional disciplines and in membership and leadership roles in their professional associations where new developments in the field are discussed and recommendations for changes in academic programs are made. In addition, the Dean, associate deans, department chairs, and faculty members participate in the annual and semi-annual meetings of the Association of Schools and Programs in Public Health (ASPPH). These meetings provide valuable insight into developments in the field that inform modifications of competencies. For example, the continuing relevance of the 10 essential public health services

has been reinforced in ASPPH meetings where the National Public Health Performance Standards and the Public Health Accreditation Board have been presented.

Information from the field of practice also comes from practitioners who serve as adjunct or clinical faculty, content expert guest lecturers in individual courses, and the Public Health External Advisory Committee. For the MPH program, internship preceptors, representing a diverse array of practice settings throughout the country, assess the competencies of each intern, thus informing the need for curricular or competency revisions.

In addition to CEPH accreditation, five of the College's programs are accredited by specialized agencies; the Florida Board of Governors requires a review of each academic program every seven years; and the University initiates program reviews, such as the University-wide review of PhD programs in 2011-12, on a periodic basis. Each of these reviews involves an in-depth assessment of the competencies graduates are expected to achieve and the means the program uses to ensure success.

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:

1. The MPH program has developed a set of core competencies that are derived from the 10 essential services of public health.
2. Each MPH concentration has developed a set of concentration-specific competencies.
3. All other instructional programs in the College are guided by clearly stated competencies.
4. Learning experiences are linked to the competencies expected of graduates of each program.
5. Competencies and learning experiences are informed by professional and academic standards promulgated through appropriate professional organizations and reviewed periodically to assure correspondence with the needs of the field.
6. Competencies are disseminated to students through venues that vary across programs and are easily accessed.

Weaknesses:

None identified

Plans:

1. Competencies and associated learning experiences will continue to be updated on a regular basis.
2. See Criterion 2.7.e for plans regarding the MPH competencies and curricula revisions.