

#### PROGRAM POLICY STATEMENT

# MASTER OF PUBLIC HEALTH (MPH) WITH A CONCENTRATION IN EPIDEMIOLOGY COLLEGE OF HEALTH SCIENCES

# MASTER OF PUBLIC HEALTH (MPH) WITH A CONCENTRATION IN HEALTH POLICY AND MANAGEMENT COLLEGE OF ARTS AND SCIENCES

(REVISED NOVEMBER 2019)

#### **Contents**

- I. Executive Summary
- II. Program History
  - A. Context, Planning Process, and Expectations
- III. Admission
  - A. Admission Criteria and Requirements
  - B. University of Delaware Diversity Statement
- IV. Academic Degree: Master of Public Health (MPH)
  - A. Degree Requirements
  - B. Applied Practice Experience (APE) Requirements
  - C. Integrative Learning Experience (ILE) Requirements
  - D. Timetable and Satisfactory Progress
- V. Assessment Plan
- VI. Financial Aid
- VII. Program Administration and Organization
  - A. Program Faculty
  - B. MPH Program Director
  - C. MPH Program Committee
  - D. External Advisory Board
  - E. MPH Program Timetable
- Appendix I. CEPH Accreditation Foundational Knowledge Areas
- **Appendix II.** CEPH Accreditation Foundational Competencies
- **Appendix III.** Potential Courses for Electives
- **Appendix IV**. New Course Descriptions in Program in Epidemiology and School of Public Policy and Administration
- Appendix V. Potential Affiliated Faculty

#### I. EXECUTIVE SUMMARY

Public health is the science of protecting and improving the health of individuals, families, and communities by addressing social and environmental determinants of health; conducting research for disease and injury prevention; and detecting and controlling of infectious and chronic diseases (Centers for Disease Control and Prevention Foundation (CDC) 2015). As noted by University of Delaware President Assanis, development of programs in public health is a top priority that will help to grow our graduate enrollment for both domestic and international students. The University of Delaware currently has in place many strengths in public health-related research, teaching, and service. Drawing on these strengths, the College of Health Sciences (CHS) and the College of Arts and Sciences (CAS) are seeking to develop a Master of Public Health (MPH) degree with concentrations in Epidemiology in the College of Health Sciences and in Health Policy and Management in the College of Arts and Sciences.

Across the U.S., local and state public health agencies provide a wide range of population-based public health services for their jurisdictions, including 10 Essential Public Health Services (EPHS) defined by CDC (CDC, 2017). The provision of the 10 EPHS requires a dynamic and highly trained workforce prepared to constantly meet new challenges. From changes in chronic disease morbidity and mortality to emerging infectious diseases and natural and man-made disasters, the public health workforce must be trained to capably response and continuously improve (Lurie 2004; Hyde & Shortell 2012).

State-level data on the public health workforce is somewhat limited; however, assessments by national organizations such as the Association of Public Health Laboratories (APHL), Association of State and Territorial Health Officials (ASTHO), Council of State and Territorial Epidemiologists (CSTE), and National Association of County and City Health Officials (NACCHO) have shown that there are approximately 8,000 epidemiology positions in governmental public health across the U.S., which represents only 3% of the entire public health workforce (Beck, Boulton, & Coronado, 2014). The fact that this 3% of the workforce is responsible for the provision of 4 of the 10 EPHS is one factor demonstrating the urgent need for the MPH in Epidemiology. In addition, little is known about the epidemiology-specific education and training of the current public health workforce (O'Keefe, Shafir, and Shoaf 2013). In many public health agencies, epidemiology functions, including disease surveillance, study design, data collection and analysis, and designing disease control methods are carried out by public health nurses or environmental health specialists. In fact, one-third of epidemiology staff in small and medium jurisdictions lack formal academic training in epidemiology, limiting the overall epidemiologic capacity of the public health system (O'Keefe et al., 2013; Moehrle 2008).

Similarly, workforce studies, assessments by professional organizations, and studies published in the peer-reviewed literature point to the need to increase public health education in policy-related fields (Rosenstock et al. 2008). In its 2011 report, *For the Public's Health*, the Institute of Medicine (IOM) pointed out ways in which policy tools should be utilized to improve public health practice around a range of issues, from smoking bans to school nutrition standards. Studies of the complex challenges facing healthcare organizations of the future have consistently noted the need for leadership development in health policy and management (Christensen 2009). The transformation of the U.S. healthcare system will require students with skills in collaborative research, design, implementation, and evaluation of health policy to ensure the public's health. In hospitals and healthcare facilities and

in other settings, such as local, state, and Federal government, students with graduate level training in health policy and management are needed to address issues related to paying for health care, building healthy and more equitable communities, improving the quality of and access to health care, and using health data as part of health services research to improve health (Academy Health 2018).

Not only are there documented needs for a larger and more competence public health workforce in these two areas, but according to the Association of Schools and Programs of Public Health's Statement on the Public Health Workforce, additional programs are particularly needed to deliver cross-disciplinary public health education (Rosenstock et al. 2008). An internal market analysis conducted by the University of Delaware's Office Corporate Program and Partnerships also shows demand across the Mid-Atlantic States for students with an MPH degree in epidemiology and health policy.

Local needs are consistent with national data. Currently, the overall health status of the State of Delaware ranks 30th in the nation, with the goal of being in the top 5 by 2019 (America's Health Rankings, 2017). Limiting progress toward achieving this goal is the fact that Delaware is the most populous among only three remaining states without an accredited graduate-level program or school of public health. As such, students and working public health professionals in Delaware lack access to accredited, innovative, and rigorous public health education and training opportunities. The provision of this education and training is essential not only for the development of the current workforce, but also to address anticipated shortages in the public health workforce (NACCHO, State Public Health Worker Shortage Report, 2011).

In the field of public health, the MPH is the professional credentialing degree, analogous to the MBA for business or MFA for the arts. The MPH is the central degree program around which public health accreditation, which is managed by the Council on Education for Public Health (CEPH), is based. Beginning with the MPH in Epidemiology and the MPH in Health Policy and Management will allow us to expand the public health program at the University of Delaware systematically into other degree programs in the future, such as a baccalaureate in public health (BSPH), dual degrees, and additional Ph.D programs.

In the U.S., there are currently 107 Schools and Programs of Public Health, with approximately 60,000 students enrolled at the undergraduate, masters, and doctoral level (Association of Schools & Programs of Public Health, 2018). In October, 2016, CEPH made major changes to their public health program accreditation criteria (Kirsberg, 2017), with the goal of creating a workforce that has attained proficiency not only in specific competencies, but is able to take a broader look at issues and become leaders in the field of public health by fostering flexibility and innovation. Job task analyses of public health professionals led to a clear consensus that traditional academic public health silos are not working. The revised criteria present a unique opportunity for the development of the new MPH degree at the University of Delaware, which will be designed to meet these new guidelines and to address the critical public health training gap in Delaware through a competency-based approach (See **Appendices I and II**). By designing courses *de novo* that meet foundational knowledge and competencies, the University of Delaware will be positioned ahead of programs that have a longer history of delivering instruction in public health. Laura Rasar King, the Executive Director of CEPH, has said that the University of Delaware is in "an ideal position" to design a program now that can meet all the new criteria in innovative, integrative ways (Personal Communication, October 16, 2016).

This MPH degree has the full support of the College of Health Sciences and the College of Arts and Sciences as well as other programs throughout the University and stakeholders across the State (See

**Letters of Support**). The MPH degree will contribute directly to several critical goals for the University of Delaware, including: 1) increasing professional graduate enrollment; 2) meeting a critical workforce development goal for Delaware; 3) creating a fully accredited program in public health for the State of Delaware that can be directly leveraged for additional tuition revenue streams (e.g., BSPH, Ph.D., and dual-degree offerings) as the program grows; and 4) serving as a model for interdisciplinary graduate education within the University of Delaware.

#### II: PROGRAM HISTORY

# A. Context, Planning Process, and Expectations

#### A.1. Context

In 2017-18, the University of Delaware's public health minor program enrolled approximately 180 students. However, Delaware is the most populous of the three states without an accredited graduate level program in public health. This requires Delaware students to go out of state for an MPH degree. Working professionals who need additional training must turn to online programs or leave the state. Delaware State University has a BSPH Program, and we are working with them to build linkages and feed the pipeline for the MPH Program. In addition to the MPH in Epidemiology and the MPH in Health Policy and Management in CHS and CAS respectively, in the future, there are many potential programs that could be offered, including other MPH concentrations, as well as online, hybrid, and certificate programs for working professionals.

New accreditation guidelines from CEPH aim to ensure that the next generation of public health professionals graduate having attained foundational knowledge areas (**Appendix I**) and foundational competencies (**Appendix II**) that have been determined to be critical to meeting the public health needs of the future. Delaware's strengths as a small state with robust linkages between the University and State government position us well to create an MPH degree that addresses the new CEPH accreditation guidelines by ensuring students attain competency in 8 domains, including: evidence-based approaches to public health; public health & health care systems; planning & management to promote health; policy in public health; leadership; communication; interprofessional practice; and systems thinking. This degree will expand UD's community engagement and presence, and serve Delawareans through partnerships with healthcare systems, nonprofit organizations, city and county governments, and the State of Delaware (See **Letters of Support**).

#### A.2. Planning Process

Beginning in Fall 2016, the Dean of CHS appointed Dr. Melissa Melby from the Department of Anthropology as Coordinator for Population Health Initiatives to work on developing an MPH degree for the University of Delaware. A cross-college MPH planning committee was formed and met bimonthly to evaluate the need for the proposed program and identify existing strengths at the University of Delaware. The MPH planning committee's work included evaluating similar MPH programs across the country, attending the meeting on the rollout of the new CEPH accreditation guidelines, and networking with MPH directors at the American Public Health Association (APHA) Annual Meeting in 2016 and 2017. In addition, the committee received input from relevant stakeholders within the University of Delaware, public health practitioners involved in the Delaware Academy of Medicine, the Delaware Public Health Association, the Delaware Health Sciences Alliance, the Department of Health and Social Services, and Christina Care, and with other academic public health programs in the region (e.g., Thomas Jefferson University). Instead of focusing primarily on inputs and content

delivery of public health programs, the new CEPH guidelines focus on outputs. By building an interdisciplinary core curriculum across the Colleges of Health Sciences and Arts and Sciences as the foundation for the MPH degree, the University of Delaware will have an opportunity to position itself ahead of public health schools and programs that have a longer history of delivering instruction in public health.

Using the information gathered, expectations and design for the MPH degree were conceptualized. Existing courses in relevant public health areas were reviewed and documented (**Appendix III**). The planning committee applied for and received a grant from the Provost's Initiative for Excellence and Innovation in E-Learning to develop a core curriculum that would meet all CEPH foundational knowledge and competency requirements (**Appendices I and II**). A national search for a founding director of the Epidemiology Program was launched in Fall 2017 and Dr. Jennifer Horney, an epidemiologist with a MPH and PhD from the University of North Carolina at Chapel Hill's Gillings School of Global Public Health, joined CHS in August 2018. The University's growing strengths in health policy, including the cross-college Partnership for Healthy Communities, were recognized by the cross-college planning committee, which led to the Deans of CHS and CAS agreeing to launch the MPH Program with two concentrations, the MPH with a concentration in Epidemiology in the College of Health Sciences and the MPH with a concentration in Health Policy and Management in the College of Arts and Sciences.

# A.3. Expectations

The MPH constitutes the professional degree for public health professionals, preparing graduates for careers in many settings, including federal, state, or local governmental public health agencies, non-governmental organizations, the pharmaceutical industry, intergovernmental organizations, allied health fields, hospitals and healthcare providers, academic research, and public service. The curriculum for the MPH degree will provide students with the training needed to become effective public health practitioners with the capacity to understand, integrate, and apply tools and approaches from many sub-disciplines in various settings. Case studies integrated throughout the core courses, and completion of high-quality Applied Practice Experiences (APEs) and Integrative Learning Experiences (ILEs), as required by CEPH, are key features of this professional graduate program. Students' capacity to complete meaningful APEs and ILEs will be facilitated in part through close collaborations with the University of Delaware's Partnership for Healthy Communities (See Letters of Support from potential host sites). Combined with a rigorous, applied curriculum, APEs and ILEs will bring students to the forefront of their discipline and support students in fully attaining competencies as outlined by CEPH.

The MPH will enroll students beginning in Fall 2019 and will apply for accreditation following graduation of the first student in each concentration. The interdisciplinary degree awarded to those who complete this program will be a Master of Public Health (MPH) with a major in Public Health and a concentration in Epidemiology or in Health Policy and Management. Students completing the concentration in Epidemiology will be awarded in the College of Health Sciences and those with a concentration in Health Policy and Management will be awarded in the College of Arts and Sciences. in Epidemiology from the College of Health Sciences or Master of Public Health (MPH) in Health Policy and Management from the College of Arts and Sciences.

#### III: ADMISSION

# A. Admission Criteria and Requirements

#### A1. Criteria

Applicants from diverse educational and professional backgrounds who have a strong interest in public health are encouraged to apply. Each application will be evaluated individually on the basis of three key areas:

- 1) Academic record/achievement;
- 2) Work, research, and/or community experience;
- 3) Commitment to, and, interest in working to improve the public's health.

# A2. Requirements

Prior to application for CEPH accreditation, applicants will submit all materials directly to the University of Delaware's Office of Graduate and Professional Education using the online admission process (https://grad-admissions.udel.edu/apply/). Following the submission of an application for CEPH accreditation by the program (following the first graduation of a student with the MPH degree in each concentration), applicants will apply through SOPHAS (http://sophas.org/), a centralized application service used by all public health programs that are accredited (or seeking accreditation) from CEPH.

Admission decisions will be made by the MPH Program Committee. Students will be admitted to the program based on enrollment availability, the availability of faculty mentorship, and their ability to meet the following recommended entrance requirements:

- 1. A Bachelor's Degree from an accredited college or university with an undergraduate  $GPA \ge 3.0$ .
- 2. Verbal and Quantitative GRE (≥50<sup>th</sup> percentile) within past 5 years.
- 3. TOEFL (Test of English as a Foreign Language) score of at least 600 (paper based), or TOEFL IBT minimum score of 100.

Complete applications for the MPH Program will be reviewed on a rolling basis between January 15 and May 31 for admission at the beginning of the following fall semester. Since application decisions will be made on a rolling basis within this timeframe, applicants are strongly advised to complete and submit applications as early as possible. The materials required for the application to be considered complete are: application form, official undergraduate and graduate transcripts, official GRE scores, at least two letters of recommendation, resume, and a personal statement that includes a description of the applicant's prior experience, specific interest in public health, and career goals.

Admission to the MPH Program is competitive. Those who meet stated requirements are not guaranteed admission, nor are those who fail to meet all of those requirements necessarily precluded from admission if they offer other appropriate strengths as determined by the MPH Program Committee.

# B. University of Delaware Diversity Statement

The University of Delaware's educational mission is to prepare students to live in an increasingly interconnected and diverse world. To do so, we are committed to fostering a robust educational environment that supports critical thinking, free inquiry, and an understanding of diverse views and values. We see diversity as a core value and guiding principle for our educational mission and thus must work to make diversity an integral part of everyday life on campus. To this end, we take diversity

to mean both the recognition and appreciation of the different backgrounds, values, and ideas of those who comprise our campus, as well as a commitment to ensuring that all people on our campus are treated according to principles of fairness, civility, dignity, and equity. We are committed to building an educational community that understands people from different backgrounds and economic circumstances, with different needs, and from diverse personal and philosophical beliefs. We want to make all people who are part of the University feel welcome and valued in campus life.

# IV: ACADEMIC DEGREE: MASTERS OF PUBLIC HEALTH (MPH PROGRAM)

# A. <u>Degree Requirements</u>

#### A1. Coursework and Credit Hours

The MPH degree requires completion of a minimum of 42 semester credits that are designed to be completed over a 2-year period of full-time study. The completion of 42 credit hours ensures that graduates are grounded in 12 foundational public health knowledge areas and 22 competencies. Lists of the foundational knowledge areas and competencies are provided in **Appendices I and II**.

An outline of the 42 required credits for the MPH in Epidemiology are provided in **Table 1**. An outline of the 42 required credits for the MPH in Health Policy and Management are provided in **Table 2**. Both MPH degrees share the core courses (15 credit hours), elective courses (3-6 credit hours), and the APE and ILE (6 credit hours), reducing costs for degree development and maintenance. Descriptions of new courses proposed for the MPH are provided in **Appendix IV**.

Table 1. MPH with a concentration in Epidemiology

	Credits	\ /
CODE COURCES (5 15 151 )		Taught
CORE COURSES (5 courses, 15 credit hours)	T	
Statistical Research Methods (STAT 608)	3	Fall 1
Introduction to Epidemiology (EPID 605)	3	Fall 1
Social and Environmental Determinants of Health (BHAN 820)	3	Spring 1
Introduction to Environment and Human Health (ANTH 605)	3	Fall 2
Policy for Population Health (SPPA 620)	3	Fall 1
EPIDEMIOLOGY & STATISTICS COURSES (5 courses, 15 cm	redit hours	)
Epidemiology Methods II (required) – EPID 610	3	Spring 1
Introduction to Biostatistics (required) – STAT 656	3	Spring 1
Choose 1 from 7 Below		
HLPR 632 Health Science Data Analysis	3	Variable
STAT 609 Regression and Experimental Design	3	Variable
STAT 611 Regression Analysis	3	Variable
STAT 666 Special Topics	1-3	Variable
STAT 674 Applied Database Management	3	Variable
STAT 675 Logistic Regression	3	Variable
SPPA 704 Advanced Quantitative Methods	3	Variable
Choose 2 from 17 Below (Epidemiology Content Courses)		
Public Health Surveillance – EPID 623	3	Variable
Methods in Field Epidemiology – EPID 621	3	Variable
Disaster Epidemiology – EPID 622	3	Variable

Infectious Disease Epidemiology – EPID 620	3	Variable
Cancer Epidemiology – EPID 624 - NEW COURSE	3	Variable
Environmental Epidemiology – EPID 625 - NEW COURSE	3	Variable
Perinatal and Reproductive Health Epidemiology – EPID 626 - NEW	3	Variable
COURSE		
Social Epidemiology – EPID 627 - NEW COURSE	3	Variable
Epidemiology of Aging – EPID 628 - NEW COURSE	3	Variable
Injury Epidemiology – EPID 629 - NEW COURSE	3	Variable
Cardiovascular Disease Epidemiology – EPID 630 - NEW COURSE	3	Variable
Statistical Programming in R for Epidemiologic Research – EPID 631 -	3	Variable
NEW COURSE		
Nutritional Epidemiology - EPID 632 - NEW COURSE	3	Variable
Clinical and Translational Epidemiology - EPID 633 - NEW COURSE	3	Variable
Pharmacoepidemiology - EPID 634 - NEW COURSE		Variable
Concussion Pathology and Management - KAAP 609		Variable
EPID 667 Special Topics in Epidemiology - No limit on number of courses	3	Variable
ELECTIVE COURSES (2 courses, 6 credit hours)		
Elective 1: Additional epidemiology content courses or choose from list in	3	Variable
Appendix III with permission of the MPH Program Director		
Elective 2: Same as above.	3	Variable
APE & ILE (2 courses, 6 credit hours)		
Can take many forms; 3 credits each; practica and culminating experiences		Variable
Applied Practice Experience - HLTH 689		
Integrative Learning Experiences - HLTH 699		
TOTAL CREDITS	42	

Table 2. MPH with a concentration in Health Policy and Management

	Credits	Semester(s)
		Taught
CORE COURSES (5 courses, 15 credit hours)		
Statistical Research Methods (STAT 608)	3	Fall 1
Introduction to Epidemiology (EPID 605)	3	Fall 1
Social and Environmental Determinants of Health (BHAN 820)	3	Spring 1
Introduction to Environment and Human Health (ANTH 605)	3	Fall 2
Policy for Population Health (SPPA 620)	3	Fall 1
POLICY & MANAGEMENT COURSES (6 courses, 18 credit hours)		
Health Policy (required) – UAPP 657	3	Fall 2
Health Systems, Policy and Economics (required) – SPPA 621	3	Spring 1
Introduction to Biostatistics (required) – STAT 656	3	Spring 1
Choose 3 from 9 Below (Health Policy Content Courses)		
UAPP 684 Performance Management and Program Evaluation	3	Variable
UAPP 694 Financial Management in Public and Nonprofit Sectors	3	Variable
UAPP 707 Public Policy Analysis	3	Variable
UAPP 761 Conflict Resolution and Collaborative Problem Solving	3	Variable
SPPA 808 Qualitative Research Methods	3	Variable

UAPP 823 Proseminar in Social and Urban Policy	3	Variable
UAPP 653 Politics and Healthcare		Variable
SOCI 633 Sociology in Health and Illness	3	Variable
SOCI 647 Disparities in Health and Healthcare		Variable
ELECTIVE COURSES (1 course, 3 credit hours)		
Elective 1: Additional health policy content courses or choose from list in	3	Variable
Appendix III with permission of the MPH Program Director		
APE & ILE (2 courses, 6 credit hours)		
Can take many forms; 3 credits each; practica and culminating experiences		Variable
Applied Practice Experience - HLTH 689		
Integrative Learning Experiences - HLTH 699		
TOTAL CREDITS	42	

# B. Applied Practice Experiences (APEs) Requirement

MPH students demonstrate competency attainment through Applied Practice Experiences (APEs). APEs may involve governmental, non-governmental, non-profit, industrial, and for-profit settings or appropriate university-affiliated settings, as long as they are primarily focused on community engagement with external partners. APE sites are identified by the student and any proposed project must consider and be sensitive to the needs of the agencies or organizations involved. APE activities should be mutually beneficial to both the site and the student. We expect to work closely with the University of Delaware's Partnership for Healthy Communities to identify potential host sites, however, students are responsible for securing an APE site (See **Letters of Support** from potential host sites).

APE opportunities may include the following:

- A practicum or internship of approximately 200 hours completed during a summer, winter, or other regular semester academic term
- Course-based activities (e.g., performing a needed task for a public health or health care organization under the supervision of a faculty member as an individual or group of students)
- Activities linked to service learning, as defined by the program, school or university

The APE requires each student to demonstrate attainment of at least five competencies, of which at least three must be foundational competencies (as defined in CEPH Criterion D2). The competencies need not be identical from student to student, but the applied experiences must be structured to ensure that all students complete experiences addressing at least five competencies. APEs may also address additional foundational or concentration-specific competencies, if appropriate. Each student's competency attainment in practical and applied settings will be assessed through an ePortfolio approach, which demonstrates and allows assessment of competency attainment. It must include at least two products. Examples include: written assignments, projects, videos, multi-media presentations, spreadsheets, websites, posters, photos or other digital artifacts of learning.

# C. <u>Integrative Learning Experiences (ILEs) Requirement</u>

MPH students complete an Integrative Learning Experience (ILE) that demonstrates synthesis of foundational and concentration competencies. The ILE represents a culminating experience and may take many forms, such as a practice-based project, essay-based comprehensive exam, capstone course,

or integrative seminar. Regardless of form, the student produces a high-quality written product that might include: program evaluation report, training manual, policy statement, a comprehensive essay exam, or legislative testimony with accompanying supporting research. Products are assessed by the faculty member assigned to teach the ILE course. Ideally, the written product is developed and delivered in a manner that is useful to external stakeholders, such as non-profits or governmental organizations. Professional certification exams (e.g., CPH, CHES/MCHES, REHS, RHIA) may serve as an element of the ILE, but are not in and of themselves sufficient to satisfy this criterion. The ILE is completed at or near the end of the program of study.

# D. Timetable and Definition of Satisfactory Progress

# D1. Time Limit for Completing the Degree

The time limit for completion of the MPH degree begins with the date of matriculation and is specifically detailed in the student's letter of admission. Full-time students entering the MPH Program are given 4 consecutive regular semesters to complete the requirements. An extension may be granted for extenuating circumstances. Requests for time extensions must be made in writing and approved by the MPH Program Director. The MPH Program Director will forward the request to the Office of Graduate and Professional Education.

# D2. Submission of Required University Forms

To initiate the process for degree conferral, candidates must submit an Application for Advanced Degree to the Office of Graduate and Professional Education. Application deadlines are January 15 for Winter candidates, February 15 for Spring candidates, May 15 for Summer candidates, and September 15 for Fall candidates. The application must be signed by the MPH Program Director. An application fee for MPH degree students is required when the application is submitted. Upon completion of the graduation application, the Office of Graduate and Professional Education notifies students in writing that they have met all degree requirements.

#### D3. Grade Requirements for Satisfactory Progress

The MPH Program requires students to achieve a GPA of 3.0 or higher in the five Core Courses and a grade of Satisfactory in the APE and ILE or exit the program. Failure to satisfactorily progress in the program will be based on the University Graduate Policy. The Office of Graduate and Professional Education monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each 9semester determines academic standing.

#### D4. Reasons for Dismissal from the Program

The Office of Graduate and Professional Education notifies students when they are dismissed from graduate programs without completing a degree. Dismissals usually take place at the end of a term. Students may be dismissed for the following reasons:

- Upon the failure to meet the grade point average requirements as stated in the policy on Academic Deficiency and Probation.
- Upon written notice to the Office of Graduate and Professional Education of voluntary withdrawal from the MPH Program.
- Upon the failure to meet the stated minima in specific course requirements (e.g., Core Courses,

APE, and ILE) as identified by the MPH Program.

- Upon the determination by the MPH Program faculty that the student has failed to make satisfactory progress towards meeting required academic standards, other than the failure to achieve a cumulative grade point average of 3.0 upon the completion of the five Core Courses.
- Upon violation of University of Delaware regulations regarding academic honesty. All students are subject to University of Delaware regulations regarding <u>academic honesty</u>. Violations of these regulations or other forms of gross misconduct may result in immediate dismissal from the MPH Program.

In the case of dismissal, the MPH Program Director is required to send a report to the Office of Graduate and Professional Education that states the faculty vote on the decision causing dismissal and the justification for the action. The Office of Graduate and Professional Education will notify the student in writing when they are being dismissed.

# D5. Procedures for Student Appeals

Students who receive what they perceive as an unfair evaluation by a faculty member or faculty committee may file grievances in accordance with University of Delaware policies. Students are encouraged to contact the MPH Program Director prior to filing a formal grievance in an effort to resolve the situation informally.

In the case of academic dismissal, the student may appeal the termination by writing to the Office of Graduate and Professional Education. This appeal must be made within ten class days from the date on which the student has been notified of academic dismissal. If the Vice Provost for Academic Affairs grants reinstatement, the student must meet the conditions of the reinstatement. Failure to meet these conditions will result in dismissal from the MPH Program. A graduate student may be reinstated only once. The student's academic transcript will reflect the reinstatement with academic probation status.

Students wishing to review their program file must submit a written request to the MPH Program Director at least 24 hours in advance. Students must review the file in the presence of program staff or faculty and are not permitted to remove a file but may photocopy documents from their folder. All access to student records is in accordance with the Family Educational Rights and Privacy Act.

#### V: ASSESSMENT PLAN

A variety of internal and external mechanisms will be used to evaluate the curriculum and overall effectiveness of the MPH Program.

Internally, the MPH Program Director and the MPH Program Committee will review student progress, grades, and pass/fail rate on coursework, enrollments, and advising contracts on an annual basis. This information will be used to evaluate the extent to which students are developing critical competencies in public health, and to assess and adjust student flow through the MPH Program.

Markers of students' competency attainment will be evaluated through a portfolio approach (ePortfolio with links to projects, reflections, and other documents) documenting attainment of foundational knowledge and competencies. In addition, we will track how effectively the MPH Program advances students by tracking the following:

- 1. Graduation rates and program attrition (dropouts, dismissals)
- 2. Time to complete the MPH in Epidemiology degree

- 3. Post-graduation outcomes (80% or greater employment or enrollment in further education within a specified time frame)
- 4. Alumni perceptions of curricular effectiveness

Finally, we will use a variety of mechanisms for tracking students' perceptions of the program, including:

- 1. Teaching evaluations
- 2. Anonymous student surveys to assess different aspects of the program including: mentoring, funding, and research opportunities
- 3. Unsolicited student feedback
- 4. Alumni perceptions of curricular effectiveness

Externally, the MPH Program will be subject to review every three to seven years after initial accreditation by external reviewers in the field of public health who are assigned by CEPH.

#### VI: FINANCIAL AID

As a professional degree, funding support is not typically provided for MPH students. However, students may be funded by faculty research, start-up funding, or funds from the College of Health Sciences or the College of Arts and Sciences. Any graduate assistantships will be awarded to full-time students (registered in at least 9 graduate credits each semester) based on admission ranking, needs of the program, and experience and expertise of the graduate student. Students with full assistantships (tuition and stipends) will be obligated to work up to 20 hours per week in an assigned position during the fall, winter session, and spring semesters. Depending on the pool of applicants and the availability of funds, assistantships may be divided out into partial assistantships (tuition only). The student must remain in good academic standing to be eligible for the continuation of the award.

Students can also apply for university or external funding. For example, students can apply for any of the competitive awards offered through the University of Delaware's Research and Graduate Studies Office. This includes the University Graduate Scholar Award.

#### VII: PROGRAM ADMINISTRATION AND ORGANIZATION

# A. Program Faculty

As the MPH Program is launched, it will be supported by current faculty from across the University, supplemented by new faculty hired as part of current searches in the Epidemiology Program and the School of Public Policy. It is expected that the MPH Program will be housed at the STAR Tower. Initial affiliated faculty will include: Jennifer Horney (EPID); Erin Knight (SPPA); Freda Patterson (BHAN); Ann Bell (SOCI), Melissa Melby (ANTH), and Rita Landgraf (BHAN). **Appendix V** provides a list of potential affiliated faculty, many of whom have participated on working groups during the development of the MPH Program Policy Statement and who have research and teaching expertise relevant to the implementation and administration of the MPH Program. The MPH Program Director will evaluate the CV of any faculty member interested in becoming affiliated with the MPH Program due to their teaching, research, or service.

# B. MPH Program Director

The MPH Program Director will be a professional staff or faculty member affiliated with the MPH Program. A search will be conducted for the MPH Program Director, which may involve an interview process. The Director will typically be from the College of Arts and Sciences or the College of Health Sciences, but other Colleges are possible provided the candidate has experience with related courses, projects, or subject matter. The approval of the Program Director's home Department Chair, with appropriate course release or other support for the Program, is required. The term of service for the MPH Program Director is three years. Re-election requires a majority vote of the affiliated faculty that vote; the vote may be electronic. The initial appointment of the Program Director shall be made after an interview process that involves the Department Chairs of the affiliated faculty. The Department Chairs will make recommendations to the Program's affiliated faculty. Applications will include a cover letter stating interest in the position and plans for the MPH Program, and a complete CV.

The MPH Program Director is the central representative of the program to CEPH and external evaluators. Additional responsibilities of the MPH Program Director include:

- 1) Providing leadership and oversight for the Program;
- 2) Organizing and leading meetings of affiliated faculty and the MPH Program Committee;
- 3) Approval of student programs of study, including approval of electives;
- 4) Reviewing annual MPH student progress reports;
- 5) Communicating as necessary with the University's Office of Graduate and Professional Studies;
- 6) Serving as the first point of contact for issues arising with MPH Program students and faculty;
- 7) Corresponding with prospective students and overseeing MPH Program recruitment and admission decisions;
- 8) Approval of fieldwork sites, APEs, and ILEs; and
- 9) Program evaluation and assessment.

# C. MPH Program Committee

The MPH Program Committee will consist of at least one member from the College of Arts and Sciences and one member from the College of Health Sciences plus four at-large members and will be responsible for the administrative duties needed to implement the MPH Program at the University of Delaware. The Program Committee will consist of at least 5 MPH Program affiliated faculty and will be chaired by the MPH Program Director. Responsibilities of the MPH Program Committee include (but are not limited to):

- 1) Admission of students into the MPH Program;
- 2) Approval of student selection of a new faculty advisor after admission to the MPH Program;
- 3) Oversight of student progress in the program, including dismissal of students who fail to make satisfactory progress;
- 4) Identifying contacts for projects and data for both on- and off-campus experiences;
- 5) Attending events as required for the MPH Program, such as for recruiting;
- 6) Other tasks required for the continued success of the program.

# D. External Advisory Board

We have consulted with members for future recruitment to an External Advisory Board (**Table 3**) aiming to fill key positions along several areas (academic/professional concentrations and expertise, community connections, regional geography, experience with new and established MPH programs).

Once established, the External Advisory Board will be expected to meet at least annually to discuss and advise the MPH Program.

**Table 3. University of Delaware Potential External Advisory Board Members** 

Name	Institution	Position	
Ralph D'Agostino, PhD	Boston University	Professor	
David B. Allison, PhD	University of Indiana	Dean	
Loretta DiPietro, PhD	George Washington University	Department Head	
Penny Gordon-Larsen, PhD,	University of North Carolina at	Head of Obesity &	
FTOS, FAHA	Chapel Hill	Environment Group	
	Medical University of South		
Chanita Hughes-Halbert, PhD	Carolina	Professor	
Omar Khan, MD	Christiana Care Health System	Medical Director	
Martha Y. Kubik, PhD, MSN	Temple University	Department Head	
Shiriki K. Kumanyika, PhD,		E	
MPH	University of Pennsylvania	Emeritus Professor	
	Delaware Department of Health		
Tabatha N. Offutt-Powell	and Social Services	State Epidemiologist	
		Director of Clinical Research	
Mia Papas, PhD	Christiana Care Health System	and Health Outcomes	
Barbara K. Rimer, DrPH, MPH	University of North Carolina at		
Barbara K. Killier, Dir II, Wil II	Chapel Hill	Dean	
David A. Shoham, PhD, MSPH	Loyola University	MPH Program Director	
Joseph Telfair, DrPH, MPH,	American Public Health		
MSW	Association	President through Nov 2019	
		Associate Dean for Health	
Adewale Troutman, MD, MPH	University of South Florida	Equity and Engagement	
Nanette Turner, PhD, MPH	Mercer University	Department Head	

# E. MPH Program Timetable

The first cohort of students will begin the MPH in Epidemiology and the MPH in Health Policy and Management in Fall 2019. The goal is to enroll 15-20 students in this initial cohort and in the Fall 2020 cohort, with a planned growth to a cohort of approximately 40 student by the start of the MPH Program's fifth year, Fall 2023. Market research conducted by the University of Delaware's Office Corporate Program and Partnerships shows that the labor market in the Mid-Atlantic States for students with an MPH is strong and would support a program of this size.

# Appendix I. CEPH Accreditation Foundational Knowledge Areas

# 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)

# **Appendix II. CEPH Accreditation Foundational Competencies**

#### **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, computerbased programming and software, as appropriate
- 4. Interpret results of data analysis for public health research, policy or practice

#### **Public Health & Health Care Systems**

- 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

# 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

#### **Policy in Public Health**

- 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

# 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

#### 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

# **Interprofessional Practice**

21. Perform effectively on interprofessional teams

# **Systems Thinking**

22. Apply systems thinking tools to a public health issue

# **Appendix III. Potential Courses for Electives**

The MPH degree includes flexibility for a student to select two electives. Courses from some areas are listed below as a sample (**Table A1**). This list is not meant to be exhaustive. The electives taken by the student must be approved by the MPH Program Director.

This list includes the course number, title, and typical semesters in which the course is offered. The typical semester the course is offered is subject to change. Additional courses are likely to be added as they are requested by students or departments and subsequently approved by the MPH Program Director.

**Table A1. Potential Courses for Electives** 

Couse ID and	Course Title	Department / College	Semester
Number			Offered
BHAN609	Survey Research	Behavioral Health and	Fall
	Methods	Nutrition/ Health Sciences	
DISA650	Overview of Disaster	Public Policy and	Fall
	Science and	Administration/ Arts and	
	Management	Sciences	
GEOG622	Resources,	Geography/ Earth, Ocean	Spring
	Development and the	and Environment	
	Environment		
GEOG630	Food Geographies &	Geography/ Earth, Ocean	Spring
	Food Justice	and Environment	
GEOG670	Geographic	Geography/ Earth, Ocean	Spring, Fall
	Information Systems	and Environment	
	and Science		
GEOG671	Advanced Geographic	Geography/ Earth, Ocean	Spring
	Information Systems	and Environment	
HLPR605	Concepts of Chronic	Behavioral Health and	Fall
	Disease Management	Nutrition/ Health Sciences	
HLPR610	Health and the Media	Behavioral Science and	Winter
		Nutrition/ Health Sciences	
HLPR630	Behavior Change	Behavioral Health and	Fall
	Strategies and Tactics	Nutrition/ Health Sciences	
HLPR632	Health Science Data	Behavioral Health and	Fall
	Analysis	Nutrition/ Health Sciences	
HLPR803	Advanced Health	Behavioral Health and	Fall
	Promotion	Nutrition/ Health Sciences	
	Programming		
HLPR807	Topics and Issues in	Behavioral Health and	Spring
	Health Promotion	Nutrition/ Health Sciences	
HLPR823	Human Response to	Behavioral Health and	Spring
	Stress	Nutrition/ Health Sciences	
KAAP609	Concussion Pathology	Kinesiology and Applied	Spring
	and Management	Psychology/ Health	
	<i>3</i>	Sciences	

SOCI605	Data Collection and Analysis	Sociology and Criminal Justice/ Arts and Sciences	Fall, Summer
STAT609	Regression and Experimental Design	Applied Economics and Statistics/ Agriculture and Nat Resources	Spring
STAT611	Regression Analysis	Applied Economics and Statistics/ Agriculture and Nat Resources	Fall, Summer, Spring
STAT617	Multivariate Methods	Applied Economics and Statistics/ Agriculture and Nat Resources	Fall
UAPP619	Contemporary Issues in a Global Society	Public Policy and Administration/ Arts and Sciences	Fall
UAPP657	Health Policy	Public Policy and Administration/ Arts and Sciences	Fall, Spring
UAPP672	Nonprofit Organizations: Scope, Frameworks and Dynamics	Public Policy and Administration/ Arts and Sciences	Spring
UAPP691	Quantitative Analysis in Public and Nonprofit Sectors	Public Policy and Administration/ Arts and Sciences	Fall
UAPP697	Leading Organizations in Public & NP Sectors	Public Policy and Administration/ Arts and Sciences	Varies
UAPP701	Public Policy	Public Policy and Administration/ Arts and Sciences	Spring
UAPP702	Research Methods in Urban and Public Policy	Public Policy and Administration/ Arts and Sciences	Fall
SPPA808	Qualitative Research Methods	Public Policy and Administration/ Arts and Sciences	Spring

# Appendix IV. New Course Descriptions for MPH in Epidemiology and MPH in Health Policy and Management

# **EPID624 Cancer Epidemiology**

Academic year 2020-2021

3 credit hours

This course provides an overview of cancer epidemiology and important topics relevant to cancer

prevention and control. College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID625** Environmental Epidemiology

Academic year 2020-2021

3 credit hours

This course introduces students to methodological issues and design strategies used in environmental epidemiology, covering traditional approaches to environmental epidemiology such as occupational cohorts, disease cluster investigation, and ecologic studies as well as newer molecular epidemiologic approaches to exposure assessment and analyses of neighborhood level effects on health.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID626 Perinatal and Reproductive Health Epidemiology**

Academic year 2020-2021

3 credit hours

This course introduces students to major topics that affect the health of women and their infants during pregnancy and the perinatal period, including pregnancy loss and pregnancy outcomes, as well as how specific infectious and chronic diseases affect the health of women and infants during the perinatal period. The course also enhanced student understanding of key epidemiologic methodological issues when studying health outcomes during pregnancy and the perinatal period.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID627 Social Epidemiology**

Academic year 2020-2021

3 credit hours

This course introduces students to the sub-discipline of social epidemiology, including epidemiologic methods used to study social factors and social interactions that affect health.

College: Health Sciences Department: Epidemiology

Prerequisites: None

#### EPID628 Epidemiology of Aging

Academic year 2020-2021

3 credit hours

This course introduces the epidemiology of aging and age-related disorders, including overviews of the public health impact of an aging society and the demographics and biology of aging. Covers the descriptive and analytic epidemiology of prevalent chronic conditions in the aged, methodologic challenges essential to consider in research on older adults, and strategies for prevention of age-related disorders.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID629 Injury Epidemiology**

Academic year 2020-2021

3 credit hours

This course introduces students to theoretical, methodological and technical issues in injury surveillance, descriptive and analytical studies of injury etiology, measurements of injury severity, and survival and functional outcomes, implementation and evaluation of interventions, and multifaceted approaches to injury prevention and reduction.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# EPID630 Cardiovascular Disease Epidemiology

Academic year 2020-2021

3 credit hours

This course provides an overview of epidemiologic research methods applied to current topics in cardiovascular and cardiometabolic health and disease in human populations. Covers pathophysiology; molecular, clinical, behavioral, and social risk factors; burden and disparities across and within populations nationally and globally; and public health interventions.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# EPID631 Statistical Programming in R for Epidemiologic Research

Academic year 2020-2021

3 credit hours

This course provides an introduction to the use of the R language for epidemiology and will cover how to run basic analyses in R, find, organize, and analyze data, make plots ranging from the basic (boxplots, histograms, scatterplots), to the more advanced (beanplots, volcano, and Manhattan plots), and present results from your data in a compelling way.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID632 Nutritional Epidemiology**

Academic year 2020-2021

3 credit hours

This course introduces students to key concepts and methods in Nutrition Epidemiology in order to equip them with the tools needed to design, analyze, and critically evaluate population-based nutrition research.

College: Health Sciences

Department: Epidemiology

Prerequisites: None

# **EPID633 Clinical and Translational Epidemiology**

Academic year 2020-2021

3 credit hours

This course covers the major themes in clinical epidemiology, the science of using population methods to answer individual patient questions. This course will cover the design of epidemiological studies and the analysis and interpretation of epidemiological data in order to answer clinical questions.

College: Health Sciences Department: Epidemiology

Prerequisites: None

# **EPID634 Pharmacoepidemiology**

Academic year 2020-2021

3 credit hours

This course covers the study of the use and effects of drugs in large groups of people, from an epidemiologic perspective. Case-control and cohort study designs, use of registry data and surveillance, and other observational methods, as well as controlled clinical trials are considered from the perspective of evaluating drug safety and effectiveness.

College: Health Sciences Department: Epidemiology

Prerequisites: None

Appendix V. Potential Affiliated Faculty

Name	College	Department
Tammy Anderson	CAS	SOCI
Susan Conaty-Buck	CHS	NURS
Mieke Eeckhaut	CAS	SOCI
Katie Fitzpatrick	CAS	SPPA
Mark Greene	CAS	PHIL
Bethany Hall-Long	CHS	NURS
Emily Hauenstein	CHS	NURS
Laurens Holmes	CAS	BIOS
Eric Jacobson	CAS	SPPA
Paul Jackson	CEOE	GEOG
Amy Johnson	CHS	NURS
John Jungck	CAS	BISC
Allison Karpyn	CEHD	HDFS
Laura Lessard	CHS	BHAN
Steven Metraux	CAS	SPPA
Barret Michalec	CAS/CHS	SOCI
Michael Mackenzie	CHS	BHAN
Jennifer Naccarelli Reese	CAS	WOMS
Beth Orsega-Smith	CHS	BHAN
Carly Pacanowski	CHS	BHAN
Karen Parker	CAS	SOCI
Shannon Robson	CHS	BHAN
William Rose	CHS	KAAP
Laurie Ruggiero	CHS	BHAN
Chiara Sabina	CAS	WGS
Kelebogile Setiloane	CHS	BHAN
Richard Suminski	CHS	BHAN
David Tulsky	CHS	PT
Christy Visher	CAS	SOCI
Harvey White	CAS	SPPA
Changquig Wu	CANR	ANFS