



PROGRAM POLICY STATEMENT

MASTER OF PUBLIC HEALTH (MPH) IN EPIDEMIOLOGY COLLEGE OF HEALTH SCIENCES (REVISED OCTOBER 2023)

Contents

- I. Executive Summary**
- II. Program History and Purpose**
 - A. Program Purpose
 - B. Degrees Offered
 - C. Program Enrollment
- 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. Timetable and Satisfactory Progress
- V. Assessment Plan**
- VI. Financial Aid**
- VII. Program Administration and Organization**
 - A. MPH Program Administration
 - B. MPH Program Committee
 - C. Program Faculty
 - D. External Advisory Board
 - E. MPH Program Timetable

Appendix I. CEPH Accreditation Foundational Knowledge Areas

Appendix II. CEPH Accreditation Foundational Competencies and MPH Concentration Competencies

Appendix III. Potential Courses for Electives

Appendix IV. 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 Joseph R. Biden, Jr. School of Public Policy and Administration (Biden School) sought to develop Master of Public Health (MPH) degrees in two program areas: Epidemiology in the College of Health Sciences and Health Policy and Management in the Biden School of Public Policy and Administration.

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 respond 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).

Local needs are consistent with national data. Currently, the overall health status of the State of Delaware ranks 30th in the nation, a ranking that has been holding steady since 2017 after improving two places from 2015 (America's Health Rankings, 2019). Limiting progress toward improvement is the fact that Delaware is the most populous among only three 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). The establishment of the two MPH degree programs at the University of Delaware in 2019 has begun to address these critical gaps.

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 Epidemiology MPH and the Health Policy and Management MPH will provide the foundation 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 MPH and PhD 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 presented a unique opportunity for the development of the MPH degree programs at the University of Delaware, which was 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 purposefully designing courses 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 the program now that can meet all the new criteria in innovative, integrative ways (Personal Communication, October 16, 2016).

This Epidemiology MPH degree was initiated with the full support of the College of Health Sciences and in collaboration with the Health Policy and Management MPH degree in the College of Arts and Sciences (the previous home of the Biden School) and the Biden School of Public Policy and Administration as well as other programs throughout the University and partners across the State of Delaware. The Epidemiology MPH degree contributes 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 AND PURPOSE

A. Program Purpose

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 develop an Epidemiology MPH degree that addresses 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.

B. Degrees Offered

The degree awarded for those who complete the program is a Master of Public Health (MPH) in Epidemiology from the College of Health Sciences.

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 in Epidemiology will provide students with a comprehensive foundation of population health principles, epidemiological methods and biostatistics, and study design and will ensure students are proficient in the skills needed to successfully enter the public health workforce. 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 (PHC), Delaware Division of Public Health (DPH), and other regional public health entities. 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.

C. Program Enrollment

The MPH in Epidemiology enrolled students beginning in Fall 2019 and, along with the MPH in Health Policy and Management, submitted the University of Delaware's initial application for accreditation of the combined MPH program following graduation of the first student from both MPH degrees.

III: ADMISSION

A. Admission Criteria and Requirements

A1. Criteria

Applicants from diverse educational and professional backgrounds who have a strong interest in public health and biostatistics 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

Applicants to the MPH in Epidemiology must apply through SOPHAS (<http://sophas.org/>), a centralized application service used by all public health schools and programs that are members of the Association of Schools and Programs of Public Health (ASPPH), and then complete a supplemental application with the University of Delaware via the SLATE graduate admissions system.

Admission decisions are made by the Epidemiology program's Admissions Committee in collaboration with the MPH Admissions Committee. Students will be admitted to the program based on enrollment availability, advising capacity, and applicants' ability to meet the following recommended entrance requirements:

1. A Bachelor's Degree from an accredited college or university with an undergraduate GPA \geq 3.0.
2. TOEFL (Test of English as a Foreign Language) score of at least 550 (paper based), or TOEFL IBT minimum score of 79 for international applicants

Complete applications to the MPH in Epidemiology degree will be reviewed on a rolling basis for admission for fall semester. Applicants may be admitted for the summer term at the discretion of the Epidemiology Program Director. The materials required in SOPHAS for the application to be considered complete are: application form, official undergraduate and graduate transcripts, 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. Once the SOPHAS application is complete, a completed supplemental application with the University of Delaware must also be submitted in order to be considered for admission. The committee reserves the right to admit students provisionally. Provisional acceptance will be made with performance requirements for full standing detailed in the admission letter. Failure to satisfy the stated requirements in the allotted time constitutes a failure to meet admissions requirement and the student will be dismissed from the program.

Admission to the MPH in Epidemiology 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 Epidemiology program Admissions 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: MASTER OF PUBLIC HEALTH PROGRAM (MPH)

A. Degree Requirements

A1. Coursework and Credit Hours

The Epidemiology MPH degree requires completion of a minimum of 42 semester credits. The completion of 42 credit hours ensures that graduates are grounded in 12 foundational public health knowledge areas, 22 foundational competencies and 5 Epidemiology concentration-specific 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**. The Epidemiology MPH degree shares core courses (15 credit hours), elective courses (3-6 credit hours), and the APE and ILE (6 credit hours) with the Health Policy and Management MPH degree, reducing costs for curriculum development and maintenance.

Table 1. MPH in Epidemiology Credit Requirements

	Credits	Semester(s) Taught
CORE COURSES (5 courses, 15 credit hours)		
Biostatistics for Health Sciences I (EPID 603)	3	Fall 1
Epidemiology Methods I (EPID 605)	3	Fall 1
Social and Environmental Determinants of Health (BHAN/EPID 820)	3	Spring 1 and Fall 2
Environment and Public Health (SPPA/EPID 606)	3	Spring 1
Policy for Population Health (SPPA 620)	3	Fall 1
EPIDEMIOLOGY COURSES (5 courses, 15 credit hours)		
Epidemiology Methods II (required) – EPID 610	3	Spring 1
Biostatistics for Health Sciences II (required) - EPID 613	3	Spring 1
Introduction to Epidemiologic Data Analysis in SAS – EPID 604	3	Spring 1
<i>Choose 2 from Below (Epidemiology Content Courses)</i>		
Biostatistics for Health Sciences III - EPID 614	3	Variable
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	3	Variable
Environmental Epidemiology – EPID 625	3	Variable
Perinatal and Reproductive Health Epidemiology – EPID 626	3	Variable
Social Epidemiology – EPID 627	3	Variable
Epidemiology of Aging – EPID 628	3	Variable
Injury Epidemiology – EPID 629	3	Variable
Cardiovascular Disease Epidemiology – EPID 630	3	Variable
Statistical Programming in R for Epidemiologic Research – EPID 631	3	Variable
Nutritional Epidemiology - EPID 632	3	Variable
Clinical and Translational Epidemiology - EPID 633	3	Variable
Pharmacoepidemiology - EPID 634	3	Variable
Research Experience in Epidemiology – EPID 690	3	Variable
Concussion Pathology and Management - KAAP 609	3	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 Appendix III with permission of the Epidemiology Program Director	3	Variable
Elective 2: Same as above.	3	Variable
APE & ILE (2 courses, 6 credit hours)		
Required practice experiences (practicum) and culminating experiences (capstone)		
EPID/SPPA 689 – Applied Practice Experience (APE)	3	Variable
EPID/SPPA 699 – Integrative Learning Experience (ILE)	3	Variable
TOTAL CREDITS	42	

A2. Foundational Training Modules

The MPH is an interdisciplinary degree program with students from a diversity of backgrounds, experiences, and undergraduate degree programs. To ensure all students in the MPH program are grounded in the foundational public health knowledge areas (**Appendix I**), the MPH degree program requires completion of two (2) self-directed training modules in addition to the required 42 credits. The required modules include: *Introduction to Public Health* and *Introduction to Community Engagement*. All MPH students are required to complete the modules by the end of the first semester.

A3. Applied Practice Experience (APE)

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. The Epidemiology program works closely with the University of Delaware's Partnership for Healthy Communities (PHC) and other regional public health agencies and organizations to identify potential host sites, however, students are ultimately responsible for securing an APE site.

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
- 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 must also address concentration-specific competencies, if appropriate. Each student's competency attainment in practical and applied settings will be assessed through an e-Portfolio 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. Students completing an APE must simultaneously register into EPID/SPPA 689 to receive course credit for their degree.

A4. Integrative Learning Experience (ILE)

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. The ILE is completed at or near the end of the program of study through enrollment in and satisfactory completion of EPID/SPPA 699.

B. Timetable and Definition of Satisfactory Progress

B1. Time Limit for Completing the Degree

The time limit for completion of the Epidemiology MPH degree begins with the date of matriculation and is specifically detailed in the student's letter of admission. It is anticipated that full-time students entering the Epidemiology MPH will complete degree requirements within four consecutive regular semesters (including one summer term to complete APEs). Student's may, with permission from the Epidemiology Director, develop a Plan of Study that extends beyond two years up to a maximum time limit of ten consecutive semesters as set by Graduate College policy. An extension may be granted for extenuating circumstances. Requests for time extensions must be made in writing and approved by the Epidemiology Director. The Epidemiology Director will forward the request to the Graduate College.

B2. Submission of Required University Forms

To initiate the process for degree conferral, candidates must submit the Application for Advanced Degree (AAD) form to the Graduate College. Application deadlines are typically 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 student's advisor and the Epidemiology Director. An application fee is required when the application is submitted. Upon completion of the graduation application, the Graduate College notifies students in writing that they have met all degree requirements.

B3. Grade Requirements for Satisfactory Progress

The Epidemiology MPH program requires students to achieve a GPA of 3.0 or higher in the five MPH Core Courses and a grade of Pass in the APE and ILE or exit the program. Students must also maintain a minimum GPA of 3.0 in all courses required by the degree. Failure to satisfactorily progress in the program will be based on the University Graduate Policy. The Graduate College monitors the academic progress of all graduate students and notifies students in writing of all academic deficiencies. The cumulative GPA after each semester determines academic standing.

B4. Reasons for Dismissal from the Program

The Graduate College 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 Graduate College of voluntary withdrawal from the Epidemiology 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 degree program.
- Upon the determination by the Epidemiology 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 [academic honesty](#). Violations of these regulations or other forms of gross misconduct may result in immediate dismissal from the program.

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

B5. 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 Epidemiology 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 Graduate College. 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 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 Epidemiology 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 Epidemiology MPH.

Internally, the Epidemiology Director and the MPH Program Manager 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 program.

Markers of students' competency attainment will be evaluated through a combination of academic performance and portfolio (e-Portfolio with links to practicum products, reflections, and other documents) documenting attainment of foundational knowledge and competencies. In addition, the program will monitor how effectively the Epidemiology program advances students by tracking the following:

- a. Graduation rates and program attrition (dropouts, dismissals)
- b. Time to complete the MPH degree
- c. Post-graduation outcomes (80% or greater employment or enrollment in further education within a specified time frame)
- d. Alumni and partner perceptions of curricular effectiveness

The Epidemiology program 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 and partner perceptions of curricular effectiveness

Externally, the University of Delaware public health program (which includes both the Epidemiology MPH degree and the Health Policy and Management MPH degree) 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. 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 (proportional tuition and/or stipend). 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. Students may also be nominated for any of the competitive awards offered through the University of Delaware Graduate College. This includes the University Graduate Scholar Award.

VII: PROGRAM ADMINISTRATION AND ORGANIZATION

A. MPH Program Administration

The Director of the Epidemiology program is responsible for administration of all Epidemiology graduate degree programs, including the MPH in Epidemiology. Additionally, for the purposes of accreditation, the MPH in Epidemiology falls within the University of Delaware's broader Master of Public Health program which also includes the Health Policy and Management MPH and any future MPH degrees established. The MPH Program is administered by the MPH Program Director with support and input from the MPH Program Committee.

The MPH Program Director serves as the central representative of all MPH degree programs to CEPH and external evaluators.

B. MPH Program Committee

The MPH Program Committee will consist of the MPH Program Director, at least one member representing each MPH degree program (e.g., the Epidemiology MPH and the Health Policy and Management MPH), the MPH Academic Program Manager, and at least two at-large members. The MPH Program Committee is responsible for coordination of administrative duties needed to execute the MPH degree programs at the University of Delaware. Responsibilities of the MPH Program Committee include (but are not limited to):

- 1) Coordinating marketing and recruitment across all MPH degree programs;
- 2) Accreditation planning and monitoring;
- 3) Program planning, evaluation, and continuous improvement of the MPH program;
- 4) Coordinating public health initiatives and programs university-wide;
- 5) Establishing contacts for student and faculty projects and data for both on- and off-campus

experiences;

- 6) Attending events as required for the program, such as for recruiting;
- 7) Other tasks required for the continued success of the MPH program.

C. Program Faculty

The MPH in Epidemiology is an interdisciplinary degree primarily supported by core faculty in the Epidemiology program and also supported by faculty from across the University. **Appendix IV** provides a list of faculty affiliated with the Epidemiology MPH. The named faculty also support the shared MPH core. The Epidemiology Program Director will evaluate the CV of any faculty member interested in becoming affiliated with the program due to their teaching, research, or service.

D. External Stakeholder Input

The Epidemiology MPH works closely with the University of Delaware's Partnership for Healthy Communities (PHC) and PHC's Steering Committee, as well as Delaware's Division of Public Health, to solicit input and feedback from diverse disciplines both internal and external to the university. The program, minimally on an annual basis, seeks input and feedback from these stakeholder groups to inform ongoing development and improvement of the program and curriculum.

E. MPH Program Timetable

The first cohort of students began the MPH in Epidemiology in Fall 2019. The goal is to incrementally increase enrollment with a planned growth to a cohort of approximately 25 students by the start of the 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 and Concentration 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, computer-based 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

Concentration Competencies – Epidemiology

1. Select an epidemiologic method appropriate to address an epidemiologic research question.
2. Analyze strengths and limitations of a study design for providing evidence for a causal association.
3. Apply an appropriate advanced data analysis and management technique to analyze epidemiologic data.
4. Compare at least two reporting formats used to communicate epidemiologic data to a variety of audiences.
5. Explain the role of epidemiology in developing public health policy.

Appendix III. Potential Courses for Electives

The Epidemiology MPH degree includes flexibility for a student to select two electives. Courses from the Health Policy and Management MPH degree outside of the shared core may be taken as electives. Pre-approved courses outside of the MPH degree program may also be taken. Courses from some external areas are listed below as a sample (**Table A1**). This list is not meant to be exhaustive. Electives not included on this table may be submitted to the Epidemiology Program Director for review and approval

This list includes the course number, title, and department / college in which the course is offered. The typical semester the course is offered is subject to change.

Table A1. Potential Courses for Electives

Course ID and Number	Course Title	Department / College
BHAN609	Survey Research Methods	Behavioral Health and Nutrition/ Health Sciences
DISA650	Overview of Disaster Science and Management	Biden School
GEOG622	Resources, Development and the Environment	Geography/ Earth, Ocean and Environment
GEOG630	Food Geographies & Food Justice	Geography/ Earth, Ocean and Environment
GEOG670	Geographic Information Systems and Science	Geography/ Earth, Ocean and Environment
GEOG671	Advanced Geographic Information Systems	Geography/ Earth, Ocean and Environment
HDFS870	Prevention Intervention and Policy	Human Development and Family Studies
HLPR605	Concepts of Chronic Disease Management	Behavioral Health and Nutrition/ Health Sciences
HLPR610	Health and the Media	Behavioral Science and Nutrition/ Health Sciences
HLPR630	Behavior Change Strategies and Tactics	Behavioral Health and Nutrition/ Health Sciences
HLPR632	Health Science Data Analysis	Behavioral Health and Nutrition/ Health Sciences
HLPR803	Advanced Health Promotion Programming	Behavioral Health and Nutrition/ Health Sciences
HLPR804	Advanced Health Promotion Program Evaluation	Behavioral Health and Nutrition/ Health Sciences
HLPR807	Topics and Issues in Health Promotion	Behavioral Health and Nutrition/ Health Sciences
HLPR609	Health Behavior Theory	Behavioral Health and Nutrition/ Health Sciences
HLPR823	Human Response to Stress	Behavioral Health and Nutrition/ Health Sciences
KAAP609	Concussion Pathology and Management	Kinesiology and Applied Psychology/ Health Sciences

NTDT608	Nutrition Program Planning and Evaluation	Behavioral Health and Nutrition/ Health Sciences
NTDT812	Current Topics in Nutritional Concepts	Behavioral Health and Nutrition/ Health Sciences
SOCI605	Data Collection and Analysis	Sociology and Criminal Justice/Arts and Sciences
STAT609	Regression and Experimental Design	Applied Economics and Statistics/ Agriculture and Nat Resources
STAT611	Regression Analysis	Applied Economics and Statistics/ Agriculture and Nat Resources
STAT617	Multivariate Methods	Applied Economics and Statistics/ Agriculture and Nat Resources
STAT674	Applied Database Management	Applied Economics and Statistics/ Agriculture and Nat Resources
STAT675	Logistic Regression	Applied Economics and Statistics/ Agriculture and Nat Resources
UAPP608	Poverty, Neighborhoods, and Community Development	Biden School
UAPP653	Politics and Healthcare	Biden School
UAPP657	Health Policy	Biden School
UAPP672	Nonprofit Organizations: Scope, Frameworks and Dynamics	Biden School
UAPP691	Quantitative Analysis in Public and Nonprofit Sectors	Biden School
UAPP697	Leading Organizations in Public & NP Sectors	Biden School
UAPP701	Public Policy	Biden School
UAPP702	Research Methods in Urban and Public Policy	Biden School
UAPP703	Urban Society and Public Policy	Biden School
UAPP 823	Social and Urban Policy	Biden School
SPPA704	Advanced Quantitative Methods	Biden School
SPPA808	Qualitative Research Methods	Biden School

Appendix IV. Current Affiliated Faculty

Table A2. Current Affiliated Faculty

Name	College	Department
Jennifer Horney	CHS	EPID
Yendelela Cuffee	CHS	EPID
Elizabeth Fournier	Biden	SPPA
Melissa Melough	CHS	HBNS
Mary Mitsdarffer	Biden	SPPA
Amy Nelson	CHS	EPID
Tarang Parekh	CHS	EPID
Jee Won Park	CHS	EPID
Freda Patterson	CHS	HBNS
Laurie Ruggiero	CHS	HBNS