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June 15, 2018

James D. Fielder, Jr., Ph.D.
Secretary of Higher Education
Maryland Higher Education Commission
Nancy S. Grasmick Building, 10th floor
6 North Liberty St., Baltimore, MD 21201

Dear Secretary Fielder:

The University of Maryland, Baltimore is requesting authorization to revise the existing the Master of Public Health program's curriculum in order to meet new Council on Education for Public Health (CEPH) accreditation requirements.

I appreciate your consideration. If you have any questions, please contact me at 410-706-2304 or bjarrell@umaryland.edu.

Sincerely,

A handwritten signature in blue ink that reads "Bruce E. Jarrell".

Bruce E. Jarrell, MD, FACS
Executive Vice President and Provost
Dean, Graduate School

**Proposal to Revise the Curriculum of the Master of Public Health (MPH) Program at the
University of Maryland School of Medicine**

May 2018



Cover Sheet for In-State Institutions New Program or Substantial Modification to Existing Program

Institution Submitting Proposal	University of Maryland, Baltimore
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Each action below requires a separate proposal and cover sheet.

- | | |
|---|---|
| <input type="radio"/> New Academic Program New | <input type="radio"/> Substantial Change to a Degree Program |
| <input type="radio"/> Area of Concentration New | <input type="radio"/> Substantial Change to an Area of Concentration |
| <input type="radio"/> Degree Level Approval New | <input type="radio"/> Substantial Change to a Certificate Program |
| <input type="radio"/> Stand-Alone Certificate | <input type="radio"/> Cooperative Degree Program |
| <input type="radio"/> Off Campus Program | <input type="radio"/> Offer Program at Regional Higher Education Center |

Department Proposing Program	UM School of Medicine, Department of Epidemiology and Public Health	
Degree Level and Degree Type	Master's Degree	
Title of Proposed Program	Master of Public Health	
Total Number of Credits	42	
Suggested Codes	HEGIS: 12141	CIP: 512201
Program Modality	<input checked="" type="radio"/> On-campus <input type="radio"/> Distance Education (<i>fully online</i>) <input type="radio"/> Both	
Program Resources	<input checked="" type="radio"/> Using Existing Resources <input type="radio"/> Requiring New Resources	
Projected Implementation Date	<input checked="" type="radio"/> Fall <input type="radio"/> Spring <input type="radio"/> Summer Year:	
Provide Link to Most Recent Academic Catalog	URL: www.medschool.umaryland.edu/epidemiology/mph/Prospective-Students/Master-of-Public-Health-MPH-Program/	

Preferred Contact for this Proposal	Name:	Diane Marie M. St. George, PhD
	Title:	Director, MPH Program and Vice Chair, Academic Programs
	Phone:	(410) 706-0206
	Email:	dstgeorge@som.umaryland.edu

President/Chief Executive	Type Name:	*Dr. Bruce E. Jarrell, Executive Vice President and Provost	
	Signature:		Date: 06/15/2018

Approval/Endorsement by Governing Board	Type Name:		
	Signature:	Date:	

Revised 5/15/18

**Proposal to Revise the Curriculum of the Master of Public Health (MPH) Program at the
University of Maryland School of Medicine**

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**University of Maryland Baltimore
School of Medicine**

**Proposal to Revise the Curriculum of the Master of Public Health (MPH) Program at the
University of Maryland School of Medicine**

A. Centrality to institutional mission statement and planning priorities:

Program Description

The Master of Public Health (MPH) Program at the University of Maryland School of Medicine is revising its current program curriculum to meet the new Council on Education for Public Health (CEPH) accreditation requirements by the fall of 2018. The current MPH Program currently requires 42 credits and offers three concentrations (Community and Population Health, Epidemiology, and Global Health). The number of credit hours and concentrations will remain the same.

In 2004, the University of Maryland Baltimore (UMB) responded to the growing need for well-trained public health professionals by establishing an MHEC-approved MPH Program. The MPH is a professional degree program that is administratively based in the Department of Epidemiology and Public Health within the School of Medicine. The 42-credit-hour program is accredited through December 2021 by the Council on Education for Public Health (CEPH), an independent agency recognized by the U.S. Department of Education to accredit schools of public health and public health programs outside schools of public health.

Building upon the rich history and tradition of excellence of the School of Medicine, as well as the dynamic academic community, the MPH Program is vibrant and growing. The MPH Program enjoys a strong research environment with outstanding University resources. Being part of a unique campus environment has made it possible for broad-based interdisciplinary scholarship, research, practice, leadership and policy. The MPH Program has collaborated with the UMB professional schools to offer six dual-degrees: DDS/MPH, JD/MPH, MD/MPH, MS (Nursing)/MPH, PharmD/MPH and MSW/MPH making this the only public institution in the state to offer such unique opportunities.

Institutional Mission and Vision

The currently approved mission statement of UMB is “*To improve the human condition and serve the public good of Maryland and society at-large through education, research, clinical care, and service.*”

The University’s vision is as follows:

The University will excel as a pre-eminent institution in its missions to educate professionals, conduct research that addresses real-world issues affecting the human condition, provide excellent clinical care and practice, and serve the public with dedication to improve health, justice, and the public good. The University will become a dominant economic leader of the region through innovation, entrepreneurship, philanthropy, and interdisciplinary and interprofessional teamwork. The University will extend its reach with hallmark

local and global initiatives that positively transform lives and our economy. The University will be a beacon to the world as an environment for learning and discovery that is rich in diversity and inclusion. The University's pillars of professionalism are civility, accountability, transparency, and efficiency. The University will be a vibrant community where students, faculty, staff, visitors, and neighbors are engaged intellectually, culturally, and socially.

With a mission to: “*promote and protect the health and well-being of the diverse communities throughout Maryland, the nation and the world through interdisciplinary education, research, practice, leadership and public policy*”, the MPH Program is critical to advancing the mission and vision of the university.

Alignment with Institution's Strategic Goals

The UMB community created its most recent strategic plan (mission, vision, and core values) in 2017 to help shape the University for the following five years. Theme 1 of the current (2017-2021) UMB Strategic Plan is to “Deepen and expand local and global engagement by providing health, legal, and social work programs, and engaging in research to promote social justice and improve health.” The MPH Program’s educational, service and research agenda is in full alignment of the university’s current and previous strategic priorities.

B. Critical and compelling regional or Statewide need as identified in the State Plan:

As has been true since its inception in 2004, and perhaps even more now, there is growing local, national and international demand for health, law and human services professionals with interdisciplinary training. The MPH program has offered a unique opportunity for interprofessional education for professional students with the dual degree options, dual professional students (students who have already obtained a professional graduate degree and then decide to enroll in the MPH Program) and single degree students. Students benefit from the rich, interprofessional environment afforded by the unique UMB campus which offers health, legal and social work training programs.

The dual degree and dual professional options within the program uniquely align with the Maryland State Plan for Postsecondary Education’s innovation goal (Goal 4: Maryland will seek to be a national leader in the exploration, development, and implementation of creative and diverse education and training opportunities that will align with state goals, increase student engagement, and improve learning outcomes and completion rates). By offering a dual degree option with all of the schools on the UMB campus, the MPH Program continues to be a leader in interprofessional education which provides students with diverse education and training opportunities. Continuing to provide this type of opportunity to the UMB professional students will allow them to leverage the knowledge they learn in both arenas to tackle the public health issues we are facing as a state, nation and international community.

C. Quantifiable & reliable evidence and documentation of market supply & demand in the region and State:

Projecting Market Demand

While the MPH program at UMB is not new, market demand for professionals with MPH degrees and dual degrees continues to grow. Specifically, it was reported in 2016 by the Center for Health Workforce Studies, School of Public Health, University at Albany State University of New York that the rate of employment in the health care sector grew faster than the rate of employment in all other sectors, between 2004 and 2014. Furthermore, the Bureau of Labor Statistics reports that employment of health educators and community health workers, medical and health services managers, and epidemiologists are projected to grow by 21 percent, 10 percent and 23 percent from 2012 to 2022, respectively. Much of this growth will be driven by the large baby-boomer population that continues to age.

MPH Program Enrollment

UMB is in a unique position to truly make an impact on this foreseen need by training well-rounded public health workers who will be ready to make a positive impact on the public health needs of our state, nation and the world community. The MPH Program seeks to recruit a diverse, well-qualified student body of approximately 25 new students per year. Table 1 below shows the number of applicants, acceptances and enrollment, by concentration, for each degree for each of the last five years.

Table 1. Applicants, Acceptances, & New Enrollments*, by Concentration#

		2013-14	2014-15	2015-16	2016-17	2017-2018
CPH	Applied	36	35	32	51	22
	Accepted	22	21	20	35	19
	Enrolled	11	11	9	13	10
EPI	Applied	31	54	34	39	39
	Accepted	22	25	23	23	28
	Enrolled	7	7	6	6	10
GH	Applied	16	48	50	26	28
	Accepted	11	20	33	11	16
	Enrolled	6	4	6	3	4
TOTALS	Applied	83	137	116	116	89
	Accepted	55	66	76	69	63
	Enrolled	24	22	21	22	24

*Some students enroll in semesters after the ones in which they are offered admission. Those students are counted as applied/accepted in the year they apply/are accepted to the MPH, but are not counted as enrolled until the year in which they first enroll in MPH coursework. This most commonly occurs with our dual degree students who can apply to the MPH in the year in which they first apply to their home program or may do so in a subsequent year. Therefore, some students shown as newly enrolled in a given year may have applied and been accepted in a prior year. Conversely, students who apply and are accepted in a given year may not appear as new MPH enrollments for up to two years later.

#For this table, applicants/students are recorded in the concentrations identified on their applications. In a few cases, students have requested and received permission to transfer concentrations after enrollment.

D. Reasonableness of program duplication:

The MPH Program at the University of Maryland School of Medicine enrolled its first cohort of students in 2004-2005 and was first accredited in 2009 by the Council on Education for Public Health (CEPH). In 2014, the program was re-accredited for an additional seven years. The MPH Program currently offers an MPH as well as dual-degree options for students enrolled in UMB programs in health, law, and human services (DDS/MPH, JD/MPH, MD/MPH, MS (Nursing)/MPH, PharmD/MPH and MSW/MPH). The MPH Program at the University of Maryland School of Medicine is the only one in the state to offer such a unique opportunity and it naturally creates a multidisciplinary student body (~60% single-degree program and ~40% dual-degree programs).

We are aware of two public institutions in close proximity to UMB that are currently offering an MPH degree, one of which is the University of Maryland College Park. In the past, the School of Medicine's MPH Program had limited affiliation with the University of Maryland School of Public Health. However over the past several years with support from the *MPowering the State Initiative*, UMB and UMCP have been working together to build upon each institution's strengths to foster a collaborative partnership in public health. The College Park School of Public Health offers an MPH with eight concentrations, including Epidemiology. The UMCP and UMB Epidemiology concentrations complement each other and provide the basis for intercampus enrollment opportunities. Morgan State University offers a generalist MPH degree and does not duplicate any of the UMB concentrations.

Another institution in the Baltimore region that offers an MPH degree is Johns Hopkins University. While the MPH Program at the Johns Hopkins Bloomberg School of Public Health is also available to students in this area, over the past 12 years, we have found that the UM School of Medicine MPH degree offerings have been attractive to a unique population of in-state single-degree students seeking a smaller, more intimate learning environment, UMB dual-degree seekers, and practicing clinicians with developing interests in population health.

E. Relevance to high-demand programs at Historically Black Institutions (HBIs)

Our dual degree programs with all six of the UMB professional schools and our placement within the only USM School of Medicine provide a distinctive learning environment. Since its inception, the MPH program has served a unique need within the state and since this proposal is not intended to expand the program's offerings, we do not expect it to have any impact on the recruitment of MPH students to the Historically Black Institutions within the region.

F. Relevance to the identity of Historically Black Institutions (HBIs)

As noted above, the MPH Program serves a unique need within the state and since this request is not intended to expand the program's offerings, we do not expect this request to have any impact on the recruitment of MPH students in the Historically Black Institutions within the region.

G. Adequacy of curriculum design and delivery to related learning outcomes consistent with Regulation .10 of this chapter:

Program Requirements

The MPH Degree requires 42 credit hours as shown in Table 2 below. Students must earn grades of B or better in all required courses. The Program awards 1 credit hour for a minimum of 15 contact hours where each contact hour is equivalent to 50 minutes of actual instructor-led class time and 2-3 hours of out-of-class work time. For practice-related coursework, 1 credit hour is equivalent to a minimum of 45 field hours of 50 minutes each where supervision is ensured and learning is documented.

Table 2. MPH Degree Requirements

Requirement	Community & Population Health Concentration	Epidemiology Concentration	Global Health Concentration
Core Courses	23 credits	23 credits	23 credits
Concentration Courses	12 credits	12 credits	12 credits
Public Health Practicum	4 credits	4 credits	4 credits
Integrative Public Health Seminar	3 credits	3 credits	3 credits
Total	42 credits	42 credits	42 credits

A list of all required courses with titles, credit hours and course descriptions are included in Appendix A.

Educational Objectives and Learning Outcomes

Students graduating with an MPH degree must meet 12 learning objectives and 22 competencies as specified by the Council on Education for Public Health. Those outcomes are listed in Appendix B.

Accreditation Requirements

The MPH Program is accredited by the Council on Education for Public Health (CEPH), an independent agency recognized by the U.S. Department of Education to accredit schools of public health and public health programs outside schools of public health. Our initial accreditation was awarded in 2009. We were reaccredited in 2014 and our current term expires in 2021. In 2016, CEPH revised its accreditation criteria which prompted the redesign of our curriculum and the current MHEC substantive change application. The new program we are submitting for MHEC review will be reviewed by CEPH for compliance in January 2019.

H. Adequacy of articulation

N/A

I. Adequacy of faculty resources (as outlined in COMAR 13B.02.03.11).

Our accreditation body, the Council on Education for Public Health (CEPH), has defined requirements for an adequate faculty complement which we have consistently met. The current primary faculty includes 16 individuals, all of whom are doctorally-trained and have expertise in one or more areas of public health. A listing of the current primary faculty associated with the MPH Program is provided in Appendix C.

J. Adequacy of library resources (as outlined in COMAR 13B.02.03.12).

The MPH Program has all of its library needs met through the UMB Health Sciences and Human Services Library (HS/HSL). We do not anticipate that the curriculum revision will have any impact on the library resources.

K. Adequacy of physical facilities, infrastructure and instructional equipment (as outlined in COMAR 13B.02.03.13)

The MPH Program currently uses physical space in the School of Medicine complex. Classrooms, student space, as well as faculty and staff offices, are available in Howard Hall, Bressler Building, Health Sciences Facility I and Health Sciences Facility II. We do not anticipate that the curriculum revision will have any impact on the Program's need for physical facilities or equipment.

L. Adequacy of financial resources with documentation (as outlined in COMAR 13B.02.03.14)

The MPH Program has adequate financial resources to meet its needs. This can be demonstrated by the financial data provided for the past five years in Appendix D. The curriculum revision is not expected to have meaningful impact upon the financial stability of the Program.

M. Adequacy of provisions for evaluation of program (as outlined in COMAR 13B.02.03.15).

Procedures for Evaluating Courses

At the end of each term, students complete anonymous online course evaluations. The Curriculum Committee Chair, in consultation with the Program Director, assembles course evaluation data and brings them to the Curriculum Committee for annual review. The Committee reviews the data and makes recommendations for action, as appropriate.

Procedures for Evaluating Faculty

Faculty evaluation processes are listed below.

- Student Course Evaluation of Instructional Effectiveness: At the end of the term, students complete an anonymous form for each course they completed. The course

evaluation data are compiled, reviewed, and addressed as necessary by the Program Director.

- An annual evaluation of each faculty member occurs through the school in which he/she is appointed. Faculty complete a self-assessment allowing them to identify accomplishments over the past year and set goals for the coming year. These evaluations are then reviewed with upper level administrators.

Procedures for Evaluating Student Learning Outcomes

The MPH Program is designed to facilitate attainment of the competencies through core and concentration coursework and the integrated learning experience. Monitoring and evaluating student progress through the required coursework takes many forms as listed below.

- Throughout each course, the faculty member responsible for the course provides feedback to the student.
- Completion of Mid-Semester Alert Forms: This form is completed for those students that are in danger of not passing the course. Both the Program Director and student advisor review the form and follow-up with the student as appropriate.
- MPH Admission and Progression Committee End of Semester Student Progress: Students that fall into one of the following categories are reviewed and appropriate action is taken: (1) earned a grade less than a B in a required course in the previous term, (2) has an overall GPA less than 3.0, (3) is nearing or past the five-year time limit for degree completion, (4) was provisionally admitted to the program, (5) did not enroll in the previous term, or (6) is on academic probation from a previous term.
- Integrated practical experience is the portion of the program that allows students to use the knowledge that they gained through the previous course work and implement it in a real life setting. At the midpoint, the faculty advisor meets on site (or remotely if the student is at a distance) with the student and the preceptor to evaluate progress and address issues as needed. At the end of the experience, students complete a self-assessment, site preceptors complete an assessment of the student and the assigned faculty advisor also completes an evaluation.
- Assessment of competency attainment occurs within summary evaluations by graduating students.
- Assessments of competency attainment are also facilitated by the alumni survey and employer survey.

N. Consistency with the State's minority student achievement goals (as outlined in COMAR 13B.02.03.05 and in the State Plan for Postsecondary Education).

Minority Access to the Program

The MPH Program adheres to the University's Affirmative Action and Equal Opportunity policies in all of its recruitment and admission activities. The Program admits qualified students regardless of race, ethnicity, religion, sex, sexual orientation, national origin, age, disability, or veteran's status.

The Program is committed to recruitment and retention of a diverse student body. The recruitment plan for the Program expressly identifies the diversity of the student body as a goal of paramount importance. The Admission and Progression Committee recognizes the need for diversity among our student body and actively seeks to be fair and equitable in

admissions decision-making. As stated in the MPH student catalog/handbook, the Program adheres to the university commitment to "... not discriminate in its admissions, education services or supporting services, because of race, religion, age, national origin, sex, sexual orientation, or disability."

While the Program works with students to address their needs and optimize the potential for their success, this is usually done through individual relationship-building and support, i.e. between students and their faculty advisors/student affairs staff. For larger-scale, systematic efforts, the MPH Program benefits from campus-wide initiatives aimed at making the university climate one that is welcoming for students from a wide diversity of backgrounds. The MPH Program Director sits on the School of Medicine Diversity Committee and the University Diversity Advisory Council. Examples of diversity and inclusion-related programming include those sponsored by the UMB Office of Interprofessional Student Learning & Service Initiatives which is charged with providing "...programs that foster an environment of diversity and inclusion." They host activities to celebrate national diversity observances such as Black History Month, Women's History Month, LGBT History Month and American Indian Heritage Month.

Institution's Cultural Diversity Goals and Initiatives

The ideals of cultural diversity and inclusion are of paramount importance to the MPH Program and are clearly addressed within the University's strategic plan from the mission (noted above in response A) to the core values (noted below).

- Accountability: The University is committed to being responsible and transparent.
- Civility: The University expects interactions to be professional, ethical, respectful, and courteous.
- Collaboration: The University promotes teamwork that fosters insightful and excellent solutions and advancement.
- *Diversity: The University is committed to a culture that is enriched by diversity, in the broadest sense, in its thoughts, actions, and leadership.*
- Excellence: The University is guided by a constant pursuit of excellence.
- Knowledge: The University's industry is to create, disseminate, and apply knowledge.
- Leadership: The University continuously strives to be a leader and to develop leaders.

Additionally, Theme 4 of the current UMB strategic plan (described in Response A) is *Inclusive Excellence* the text of which is provided below:

Strategic Objective: Foster an environment that recognizes and values each member of the UMB community, enabling members to function at their highest potential to achieve their personal and professional goals.

Strategic Outcomes:

- Opportunities at UMB that enable faculty, staff, and trainees to excel and advance in their careers.
- Faculty, staff, trainees, and students who are culturally competent in their engagement with each other and those they serve and lead.

- Access to a comprehensive support network at UMB that is responsive and nurturing in promoting work-life and academic-life balance for faculty, staff, trainees, and students.
- An inclusive environment that embraces, celebrates, and promotes UMB's diversity.

O. Relationship to low productivity programs identified by the Commission:

N/A

P. If proposing a distance education program, please provide evidence of the  [Principles of Good Practice](#) (as outlined in COMAR 13B.02.03.22C).

N/A

Master of Public Health Curriculum

The MPH Program at the University of Maryland School of Medicine must implement an updated curriculum by the fall of 2018 to meet the new Council on Education for Public Health (CEPH) accreditation requirements. The current MPH Program requires 42 credits and offers three concentrations (Community and Population Health, Epidemiology, and Global Health). The credit hours and concentrations will remain the same. However, the Program will be making curriculum changes to comply with the new accreditation requirements. These curriculum changes are outlined below.

Current Course Listing	Proposed Changes	New Course Listing
MPH Core Courses		
1. Principles of Epidemiology	• Unchanged	• Principles of Epidemiology
2. Principles of Biostatistics/Biostatistical Methods	• Unchanged	• Principles of Biostatistics/Biostatistical Methods
3. Environmental & Occupational Health*	• Small percent of current course content appears in new course curriculum listed to the right	• Foundations of Public Health
4. Ethical Issues in Public Health*	• Small percent of current course content appears in new course curriculum listed to the right	• Foundations of Public Health
5. Health Services Policy, Management & Finance	• Current course has been slightly revised and renamed to new course listed to the right	• Public Health and Health Care Systems, and Policy
6. Social & Behavioral Foundations of Public Health **	• Current course content included in new courses listed to the right	• Foundations of Public Health • Health Equity & Social Justice • Program Planning & Evaluation***
	• New course	• Concepts in Qualitative Research for Public Health
	• Current elective course now required in the new curriculum	• Interprofessional Education (currently an elective course)***
Community and Population Health Concentration: 12 credits		
1. Health Survey Research Methods: Theories & Methods	• Unchanged	• Health Survey Research Methods: Theories & Methods
2. Community Based Participatory Research**	• Current course revised and renamed to new course listed to the right	• Community-Based Engagement Methods
3. Health Communication for Behavior Change	• Unchanged	• Health Communication for Behavior Change
4. Program Planning & Evaluation***	• Current concentration course moved into the core curriculum	• Program Planning & Evaluation (core)***
	• New course being developed	• Urban Health
Epidemiology Concentration: 12 credits		
1. Observational Studies in Epidemiology	• Unchanged	• Observational Studies in Epidemiology
2. Statistical Methods in Epidemiology	• Unchanged	• Statistical Methods in Epidemiology
3. Clinical Trials/Experimental Epidemiology	• Unchanged	• Clinical Trials/Experimental Epidemiology
4. Applied Epidemiology	• Unchanged	• Applied Epidemiology



5. Introduction to SAS	<ul style="list-style-type: none"> • Current course content will be included in new core course listed to the right 	<ul style="list-style-type: none"> • Public Health Professional Skills
Global Health Concentration: 12 credits		
1. Critical Issues in Global Health	<ul style="list-style-type: none"> • Unchanged 	<ul style="list-style-type: none"> • Critical Issues in Global Health
2. Program Planning & Evaluation*** or Community Based Participatory Research: Theories & Methods	<ul style="list-style-type: none"> • Course choice eliminated 	<ul style="list-style-type: none"> • Community Based Engagement Methods
3. Infectious Disease Epidemiology: A Global Perspective	<ul style="list-style-type: none"> • Unchanged 	<ul style="list-style-type: none"> • Infectious Disease Epidemiology: A Global Perspective
4. Nutritional Epidemiology	<ul style="list-style-type: none"> • Unchanged 	<ul style="list-style-type: none"> • Nutritional Epidemiology
Fieldwork		
Capstone Experience (240 hour fieldwork)	<ul style="list-style-type: none"> • Unchanged—new name 	<ul style="list-style-type: none"> • Public Health Practicum
Integrated Learning Experience		
	<ul style="list-style-type: none"> • New course 	<ul style="list-style-type: none"> • Integrative Public Health Seminar

In summary, from our current program, we have:

- Eliminated the vast majority of the content from two courses (noted with “*” in the table)
- Significantly revised two courses (rearranging content into new courses; adding content into existing courses) (noted with “**” in the table)
- Moved two existing courses (***) into the core curriculum

In addition, we are adding seven new courses with content that was not previously covered in detail:

- Foundations of Public Health
- Health Equity & Social Justice
- Public Health Professional Skills
- Concepts in Qualitative Research
- Leadership for Public Health Professionals
- Urban Health
- Integrative Public Health Seminar

Appendix A: MPH Program courses with title, semester credit hours and course descriptions.

Course Descriptions

Core Courses

- **Foundations of Public Health:** This course introduces students to foundational concepts in public health by focusing on the profession and science of public health and the factors related to human health. (1 credit). Course Instructor: Nancy Elish, DrPH
- **Professional Skills for Public Health:** This course provides students with the academic and professional skills needed for success in the MPH Program and careers in the field of public health. Students will hone skills in written and oral communication and develop foundational competence in software for data analysis and presentation. The course will also prepare students with the skills needed for entering and thriving within the public health workforce. (2 credits). Course Instructor: Diane Marie St. George, PhD
- **Health Equity and Social Justice:** This course examines the connections between social determinants of health and health equity. The social ecological model will be applied in the analysis of population health problems. Root causes of health disparities will be explored considering cultural, political, social, racial, class, gender and economic factors. Social justice principles will be the guiding ethical foundation for the course. Strategies and skills for collaboration and advocacy with diverse populations and groups will be discussed and designed. (3 credits). Course Instructor: Lori A. Edwards, DrPH, RN, PHCNS-BC
- **Concepts in Qualitative Research for Public Health:** This course provides an overview of the development of a qualitative approach within public health research and practice. It introduces various interpretive approaches, explores their use, and guides students in applying them to data. Students will analyze data and write up results in a final paper. (3 credits). Course Instructor: Nadine M. Finigan-Carr, Ph.D.
- **Principles of Epidemiology:** This introductory course presents a comprehensive overview of the concepts and methods of modern epidemiology. A major emphasis is placed on understanding the strengths and limitations of the various epidemiologic study designs. Bias, confounding, effect modification, and causal inference are covered in detail and the students are given the opportunity to apply these concepts in critiques of the published epidemiologic literature. Learning approaches include lectures, readings, discussions, in-class exercises and workshop (3 credits). Course Instructor: Nancy Elish, DrPH
- **Program Planning and Evaluation:** The focus of this foundational course is the systematic inquiry of health program planning and evaluation in public health practice. Emphasis is on the assessment, planning and evaluation of population focused health promotion and disease prevention programs and projects. Learning approaches include lectures, readings, discussions, in-class exercises, oral presentations, workshops, and field experiences in the community. Students work individually on an evidence-based program critique and short papers; students work on a team-based program plan for a

chosen population. (3 credits). Course Instructors: Susan Wozenski, JD, MPH & Jessica P Brown PhD

- **Principles of Biostatistics:** This is an introductory course in statistics with coverage of elementary probability and statistical theory, and common statistical procedures used in the biomedical and health sciences. Topics include: elementary probability; random variables; binomial and Poisson distributions; sampling distributions; estimation and significance testing; power analysis; elementary study design; numerical and visual summary; inference for means, proportions, risk ratios and odds ratios; two-group comparisons; two-way tables; Wilcoxon Rank-Sum, McNemar's, and Fisher's Exact tests; correlation and simple linear regression. (3 credits). Course Instructor: Clayton Brown, PhD
- **Biostatistical Methods:** This course is designed to introduce the students to a broad range of methods commonly used in biomedical and public health research, and 30 to provide some hands-on data analysis experience. Topics to be covered include the role of statistics in science, properties of distributions, exploratory data analysis, inference about means, proportions and survival distributions, and introduction to multivariable methods (3 credits). Course Instructor: Olga Goloubeva, PhD
- **Public Health & Health Care Systems and Policy:** This core course presents a comprehensive overview of organization, functions and financial structure of U.S. health care, public health and regulatory systems. A major emphasis is placed on understanding the development and implementation of policy, influence of stakeholders, evidence and ethics in population health. Methods for policy development and evaluation are covered in detail. Students are given the opportunity to apply these concepts through policy analyses of major U.S. public health issues. Learning approaches include lectures, readings, discussions, in-class exercises, debates and case analyses. (3 credits). Course Instructors: Charlene C. Quinn, RN, PhD
- **Interprofessional Education:** Responding to public health problems requires a collaborative approach bringing together experience and perspectives of several professional disciplines. This course, developed and facilitated by a team of faculty from Law, Public Health and Social Work, explores a current public health problem from an interprofessional lens. Students from Law, Public Health and Social Work will learn with and from each other and together to explore the contemporary issue from various contexts and frameworks. The Interprofessional Education Collaborative (IPEC) competencies serve as a foundational framework for the course. (1 credit). Course Instructors: Diane Marie St. George, PhD (MPH Faculty); Michele Beaulieu, LCSW-C (MSW Faculty); Toby Treem Guerin, JD (JD Faculty)
- **Leadership for Public Health Professionals:** This course provides students with the leadership skills required by the contemporary public health workplace. As a result of this course, students will recognize the importance of applying leadership principles at all levels of a public health agency. Students will assess their own leadership styles and skills and will develop goals for strengthening their capacity to lead. (1 credit). Course Instructor: Diane Marie St. George, PhD

Community and Population Health Concentration Courses

- **Community-Based Engagement Methods:** This course will provide a comprehensive understanding of the ways in which social scientists, health professionals, and community members can collaborate to address public health problems through research that leads to improvements in health and quality of life, and organizational or community change. Students and faculty from multiple scholarly disciplines will examine the approaches to community-based participatory research that go beyond the domain of any one discipline. Students will receive training in the skills and knowledge needed to apply mixed methods (qualitative and quantitative) approaches in designing, implementing, and evaluating public health programs and community-based participatory research. Attention will be given to the scholarly debates and practical/logistical issues in conducting community-based participatory research. Ethical principles of social justice will be applied to public health program planning and evaluation which uses community-based participatory methodology (3 credits). Course Instructor: Bruce DeForge, PhD
- **Urban Health:** Using Baltimore City as a case study, this course will discuss the public health context of the US urban environment. Students will delve into the assets and challenges facing populations in urban centers and how those impact upon health status. (3 credits).
- **Health Communication for Behavior Change:** This course is designed to expose students to the principles of health communication, health education and health promotion to encourage health behavior change. These public health practice skills are essential to a public health professional in a wide variety of work settings. Here we will build on the foundations of social and behavioral influences on public health by reinforcing the links between theory and practice, as well as address such skills as motivational interviewing, cultural sensitivity, and uses of technology in health communication. Mastering these skills will expand the professional toolkit of our emerging public health professionals to improve population health (3 credits). Course Instructor: Jessica Brown, PhD
- **Health Survey Research Methods:** This course leads students through the steps in survey research from developing a survey questionnaire, to administering it and analyzing the data. The final results of the survey are presented in a paper. (3 credits). Course Instructor: Jessica Brown, PhD

Epidemiology Concentration Courses

- **Applied Epidemiology:** This course will focus on applying epidemiologic methods to analysis of data on current issues. Students will choose a relevant question, develop testable hypotheses, conduct descriptive analyses, report and discuss results, and consider study limitations. Each step in the process will be supported by lectures and student presentations of their findings to the class. Student evaluation is based on class presentations, participation and a final written paper (3 credits). Course Instructor: Sally Adebamowo, PhD
- **Observational Studies in Epidemiology:** This course provides an in-depth examination of study designs, including case-control and cohort studies. Special emphasis will be

placed on possible biases that can occur in epidemiologic research. Some special topics will also be addressed in detail, including screening, misclassification, and questionnaire construction (3 credits). Course Instructors: Albrecht/McArdle

- **Statistical Methods in Epidemiology:** This course provides instruction on the specific statistical techniques used in the analysis of epidemiological data. Topics include: treatment of stratified and matched data, detection of interaction, conditional and unconditional logistic regression, survival analysis, and proportional hazards models (3 credits). Course Instructor: Min Zhan, PhD
- **Clinical Trials/Experimental Epidemiology:** This course presents a rigorous overview of the experimental method as applied in therapeutic evaluations. A variety of experimental methods and their clinical applications are studied in detail. Guest speakers of unique expertise and experience in clinical trials also are drawn upon. (3 credits). Course Instructor: Michael Terrin, MD, CM, MPH

Global Health Concentration Courses

- **Nutritional Epidemiology:** This course provides lectures, “hands-on” class demonstrations and activities, and discussions of assigned readings during 15 three-hour sessions. Following an introduction to basic principles of nutritional epidemiology, the topics to be covered will include dietary assessment and analyses; collecting and analyzing anthropometry and body composition data; physical activity measurement and analyses; behavior change theories; principles and applications of biomarkers; relationship between diet and risk of developing diseases (e.g. diabetes, cardiovascular, cancer, infection), international nutritional epidemiology; and the global application of methods relevant to nutrition and disease risk across the life-span. In addition the students will critique and discuss papers selected from the literature. (3 credits). Course Instructor: Erin Hager, PhD
- **Community-Based Engagement Methods:** This course will provide a comprehensive understanding of the ways in which social scientists, health professionals, and community members can collaborate to address public health problems through research that leads to improvements in health and quality of life, and organizational or community change. Students and faculty from multiple scholarly disciplines will examine the approaches to community-based participatory research that go beyond the domain of any one discipline. Students will receive training in the skills and knowledge needed to apply mixed methods (qualitative and quantitative) approaches in designing, implementing, and evaluating public health programs and community-based participatory research. Attention will be given to the scholarly debates and practical/logistical issues in conducting community-based participatory research. Ethical principles of social justice will be applied to public health program planning and evaluation which uses community-based participatory methodology. (3 credits). Course Instructor: Bruce DeForge, PhD
- **Critical Issues in Global Health:** A series of seminars, lectures and reading assignments designed to give students an overview of the global health problems facing the world today and equip them with tools to navigate the world of international health. The course focuses on teaching students about the global burden of disease and pattern of disease variations between and within countries. It addresses cross cutting issues such as

poverty, environmental degradation and the impact of globalization on health. Topics include maternal and child health, gender and violence, nutrition, water and sanitation (3 credits). Course Instructor: Yolanda Ogbolu, PhD

- **Infectious Disease Epidemiology: A Global Perspective:** This course is taught through lectures, discussions of case examples, including outbreak investigations, and assigned readings. Following an introduction to basic principles of infectious disease epidemiology, the topics will be covered according to mechanisms of transmission: contact and air-, vehicle- and vector- borne. There will be sessions on nosocomial infections and hospital infection control and vaccines to prevent infectious diseases along with discussions of problems based upon outbreak investigations. The students will prepare a presentation and a report on an infectious disease and take a short written exam and progressive review of an unknown infectious disease outbreak. The students are encouraged to attend other conferences and seminars with infectious disease epidemiology topics during the semester. (3 credits). Course Instructor: Samer El-Kamary, MBChB, MPH

Fieldwork Experience

- **Public Health Practicum:** The practicum is a 240-contact hour field experience that takes place in a public health agency under the supervision of a trained public health preceptor. Students will identify a field site and project that will allow them to apply and demonstrate public health core and concentration competencies. (4 credits). Course Instructor: Jessica Brown, PhD

Culminating Experience

- **Integrative Public Health Seminar:** This seminar serves as the integrative culminating experience for the MPH degree program. Students will apply what they have learned throughout the curriculum to conduct in-depth reviews of seminal case studies in the field of public health. Building upon their own experiences in the field, students will prepare a comprehensive final written report and oral presentation. (3 credits). Course Instructor: Diane Marie St. George, PhD

Appendix B: Program Competencies

MPH Foundational Public Health Knowledge

The program ensures that all MPH graduates are grounded in foundational public health knowledge. Grounding in foundational public health knowledge is measured by the student's achievement of the learning objectives listed below.

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 (eg, One Health)

MPH Foundational Competencies

All MPH graduates demonstrate the following 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

Appendix C: Current Primary Faculty Associated with the MPH Program

Name	Appointment Type	Terminal Degrees Earned & Field/Discipline (Field)	Academic Title/ Rank	Status	Courses
Adebamowo, Sally	NTT	MBBS, Medicine and Surgery MSc, Clinical Trials ScD, Nutritional Epidemiology	Asst	FT	<ul style="list-style-type: none"> Applied Epidemiology
Brown, Clayton	NTT	MS, Biostatistics PhD, Biostatistics	Assoc	FT	<ul style="list-style-type: none"> Biostatistical Methods
Brown, Jessica	NTT	MA, Behavioral Medicine PhD, Behavioral Medicine	Asst	FT	<ul style="list-style-type: none"> Program Planning & Evaluation Health Survey Research <u>Methods</u> Health Communication for Behavior Change Public Health Practicum
DeForge, Bruce	T	MA, Psychology PhD, Sociology	Assoc	FT	<ul style="list-style-type: none"> Community-Based Engagement Methods
Edwards, Lori	NTT	DrPH, Public Health MPH, Public Health BSN, Nursing	Asst	FT	<ul style="list-style-type: none"> Health Equity and Social Justice
El-Kamary, Samer	TT	MBChB, Medicine & Surgery MS, Surgery MPH, International Health	Assoc	FT	<ul style="list-style-type: none"> Infectious Disease Epidemiology: A Global Perspective
Ellish, Nancy	NTT	MSPH, Biostatistics DrPH, Environmental & Occupational Health	Assoc	PT	<ul style="list-style-type: none"> Foundations of Public Health Principles of Epidemiology
Finigan-Carr, Nadine M.	NTT	MS, Applied Psychology PhD, Public Health, Social Behavioral Science	Asst	FT	<ul style="list-style-type: none"> Qualitative Research Methods
Golubeva, Olga	NTT	MSc, Engineering PhD, Engineering MSc, Mathematical Statistics	Assoc	FT	<ul style="list-style-type: none"> Principles of Biostatistics
Hager, Erin	NTT	PhD, Human Nutrition	Assoc	FT	<ul style="list-style-type: none"> Nutritional Epidemiology
Ogbolu, Yolanda	TT	PhD, Global Health Nursing	Asst	FT	<ul style="list-style-type: none"> Critical Issues in Global Health
Quinn, Charlene	NTT	MS, Gerontological Nursing PhD, Health Services Research	Assoc	FT	<ul style="list-style-type: none"> Public Health and Health Care Systems and Policy
St. George, Diane Marie	NTT	MA, Health Education PhD, Epidemiology	Assoc	FT	<ul style="list-style-type: none"> Professional Skills for Public Health Interprofessional Education Leadership for Public Health Professionals Integrative Public Health Seminar
Terrin, Michael	T	MD, CM, Medicine	Prof	FT	<ul style="list-style-type: none"> Clinical Trials/Experimental Epidemiology

Name	Appointment Type	Terminal Degrees Earned & Field/Discipline (Field)	Academic Title/ Rank	Status	Courses
		MPH, Epidemiology			
Wozenski, Susan	NTT	MPH, Epidemiology JD, Law	Asst	FT	<ul style="list-style-type: none"> Program Planning & Evaluation
Zhan, Min	NTT	MS, Probability & Mathematical Statistics MS, Applied Statistics PhD, Statistics	Asst	FT	<ul style="list-style-type: none"> Statistical Methods in Epidemiology

NTT=non-tenure track; TT=tenure-track; T=tenured
Asst=Assistant Professor; Assoc=Associate Professor; Prof=Full Professor
FT=full-time; PT=part-time

Appendix D: Forms Detailing Finance Data.

Table 1: Resources

Table 1: Resources:					
Resource Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	386,457	382,631	378,842	375,092	371,378
2. Tuition/Fee Revenue (c + g below)	920,535	939,009	957,516	977,107	996,733
a. Number of F/T students	25	25	25	25	25
b. Annual Tuition/Fee Rate	797	813	829	846	863
c. Total F/T Revenue (a x b)	836,850	853,650	870,450	888,300	906,150
d. Number of P/T students	5	5	5	5	5
e. Credit Hour Rate	797	813	829	846	863
f. Annual Credit Hour Rate	16,737	17,072	17,413	17,761	18,116
g. Total P/T Revenue (d x e x f)	83,685	85,359	87,066	88,807	90,583
3. Grants, Contract & Other External Sources	0	0	0	0	0
4. Other Sources	0	0	0	0	0
TOTAL (Add 1-4)	1,306,992	1,321,640	1,336,358	1,352,199	1,368,111

Table 2: Expenditure

Table 2: Expenditures:					
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1. Faculty (b + c below)	939,422	958,211	977,375	996,922	1,016,861
a. # FTE	590%	590%	590%	590%	590%
b. Total Salary	741,454	756,283	771,409	786,837	802,574
c. Total Benefits	197,968	201,928	205,966	210,085	214,287
2. Admin Staff (b + c below)	79,101	80,683	82,296	83,942	85,621
a. # FTE	100%	100%	100%	100%	100%
b. Total Salary	56,100	57,222	58,366	59,533	60,724
c. Total Benefits	23,001	23,461	23,930	24,409	24,897
3. Support Staff (b + c below)	115,024	117,325	119,671	122,064	124,504
a. # FTE	150%	150%	150%	150%	150%
b. Total Salary	81,577	83,209	84,873	86,570	88,301
c. Total Benefits	33,447	34,116	34,798	35,494	36,203
4. Equipment	0	0	0	0	0
5. Library	0	0	0	0	0
6. New or Renovated Space	0	0	0	0	0
7. Other Expenses	173,445	165,421	157,016	149,271	141,125
TOTAL (Add 1-7)	128,561	120,339	111,732	103,782	95,427

Appendix E: References

Center for Health Workforce Studies, School of Public Health, University at Albany State University of New York. April 2016. Health Care Employment Projections, 2014-2024: An Analysis of Bureau of Labor Statistics Projections by Setting and by Occupation. http://www.chwsny.org/wp-content/uploads/2016/04/BLS-Health-Care-Employment-Projections_2016.pdf

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook*, Health Educators and Community Health Workers, on the Internet at <https://www.bls.gov/ooh/community-and-social-service/health-educators.htm> (visited *March 28, 2018*).