

Board of Trustees

Executive Committee

April 18, 2017

**RESOLUTION TO APPROVE A GRADUATE CERTIFICATE
IN PUBLIC HEALTH**

WHEREAS, Article II, Section 1 of the By-Laws of the Board of Trustees for Case Western Reserve University (the “University”) states, in relevant part, that the Board of Trustees shall oversee the educational programs of the University; and

WHEREAS, the charge for the Faculty Senate Committee on Graduate Studies (the “Committee”) states, in relevant part, that the Committee shall review and make recommendations to the Faculty Senate with respect to graduate certificate programs at the University, and the Committee voted at its March 1, 2017 meeting to recommend the proposed Graduate Certificate in Public Health (the “Certificate”) to the Faculty Senate; and

WHEREAS, Article V, Section A, Par. 2 of the Constitution of the University Faculty states in relevant part that the Faculty Senate shall make recommendations to the President for consideration and transmittal to the Board of Trustees with respect to policies governing standards for curricula and content of all degree programs; and

WHEREAS, at its meeting on March 22, 2017, the Faculty Senate voted to recommend the Certificate to the President for consideration and transmittal to the Board of Trustees for approval.

NOW, THEREFORE, BE IT RESOLVED THAT:
the Executive Committee of the Board of Trustees of the University approves the establishment of the Certificate, and authorizes the University to take and to oversee all necessary actions in order to create the Graduate Certificate in Public Health.

APPROVED by the
EXECUTIVE COMMITTEE
Case Western Reserve University
BOARD OF TRUSTEES
Elizabeth J. Keefer
SECRETARY OF THE CORPORATION

Mendel Singer, PhD MPH

Graduate Certificate in Public Health

Overview

- Most public health programs offer certificates.
- Good source of additional revenue.
- Lots of people interested in public health, but not ready for 42 credits.
- No new courses. Minimal advising.
- If a small number, no additional resources needed.
- If a large number, major revenue increase covers need for additional resources
- All courses in proposed 15 credit certificate would count towards Master's in Public Health (MPH).
 - Potential pipeline to MPH
 - Plan to eventually offer evening/online sections of required courses
 - Makes program more accessible to part-time MPH students
 - Allows for growth of the certificate program

Details

- 15 credits. Can be done 1 course per semester. Change to *On transcript?*
 - 12 required (all MPH required core courses)
 - 3 elective (from dept. or other approved courses, e.g. Nutrition for Health Care providers, Public Health Ethics)
- Initially aimed at clinicians of all types (especially residents, fellows)
 - Public health education important for health care providers
 - Open to employees of public health departments (likely at large discount)
 - Thank you for all they do for our program (e.g. field placements)
- May eventually open to other students, pending resources.
- Full registration of 10 clinicians, tuition revenue = \$140,000
 - Expenses for Program Director time, staff time, teaching assistants = \$39,000
- Program Director: Mendel Singer, PhD MPH

Pamela B. Davis, MD, PhD
Dean
Senior Vice President for Medical Affairs
Office of the Dean

10900 Euclid Avenue
Cleveland, Ohio 44106-4915

Visitors and Deliveries
Biomedical Research Bldg., Room 113

phone 216.368.2825
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casemed.case.edu

February 27, 2017

Peter Harte, PhD
Chair, Faculty Senate
c/o Rebecca Weiss, Secretary of the University Faculty
Adelbert Hall
7001

Dear Professor Harte:

As noted in the accompanying memo from Dr. Maureen McEnery, Chair of the School of Medicine's Faculty Council, the Faculty Council has recommended approval of a Graduate Certificate in Public Health.

The Department of Epidemiology and Biostatistics offers a Master's degree in Public Health (MPH) and has requested approval to offer a Graduate Certificate in Public Health using existing courses as the core curriculum for the certificate. The certificate will initially be open to residents, fellows, and current public health department employees. Nationally, there is a high demand for these programs to provide a foundation of knowledge in public health to health care professionals. This certificate program aligns with the mission of the department and school to educate and improve the health of our community.

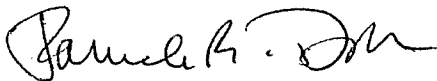
The proposal approval process is outlined in Dr. McEnery's memo. An ad hoc Committee was convened to review this new program and after revisions, the program was approved by the Faculty Council.

I concur with the Faculty Council and recommend approval of this certificate program.

Please submit the proposed certificate program to the appropriate committees for their review at their earliest opportunity. I would be pleased to answer any questions that might arise during the review process.

Thank you.

Sincerely,



Pamela B. Davis, MD, PhD

c: Dr. Maureen McEnery, Chair, Faculty Council
Nicole Deming, Assistant Dean for Faculty Affairs and Human Resources, SOM

enclosures



SCHOOL OF MEDICINE

CASE WESTERN RESERVE
UNIVERSITY

Memorandum

To: Pamela B. Davis, MD, PhD
Dean, School of Medicine
Case Western Reserve University

From: Maureen W. McEnery, PhD, MAT
Chair of the Faculty Council

Re: Graduate Certificate in Public Health

Date: Sept 20, 2016

At its September 19, 2016, meeting, the Faculty Council voted unanimously to recommend approval of Graduate Certificate in Public Health.

In accordance with our SOM practices, an ad hoc committee composed of members of the Faculty Council Steering Committee, Graduate Directors, the SOM members of the Faculty Senate's Committee on Graduate Programs, and the Associate Dean for Graduate Education was created to review the program proposal. The ad hoc committee was chaired by Nicholas Ziats. The ad hoc committee reviewed the document, discussed the proposal, and engaged with the program presenter. After discussion, the ad hoc committee approved the reviewed proposal and it was sent to the Faculty Council for a vote.

After your review, I hope you will join me in recommending the proposal for a Graduate Certificate in Public Health for approval by the Faculty Senate, as required by the Faculty Handbook.

Please let me know if I can provide any additional information.

Thank you for your consideration.

Sincerely,



Maureen W. McEnery, Ph.D, MAT
Chair of the Faculty Council
Associate Professor of Neurology
Associate Professor of Neuroscience
University Hospitals of Cleveland Medical Center
Case Western Reserve University School of Medicine

cc: Nicole Deming, JD, MA, Dan Anker, JD, PhD

CWRU Action Form for Majors/Minors/Programs/Sequences/Degrees
(instructions on back)

Docket # _____

College/School: School of Medicine

Department: Epidemiology and Biostatistics

PROPOSED: major
 minor
 program
 sequence
 degree

TITLE: Graduate Certificate in Public Health

EFFECTIVE: Fall (semester) 2017 (year)

DESCRIPTION: 15 credits, consisting of 4 required 3-credit courses plus one elective 3-credit course. All courses are selected from currently offered graduate level (400+) courses in the dept. of Epidemiology and Biostatistics, which already offers a Master's degree in Public Health (MPH). The 4 required courses (also required for the MPH degree) are: Intro to Health Behavior, Intro to Epidemiology for Public Health Practice, Statistical Methods in Public Health, Public Health Management and Policy. The elective course can be selected from any other graduate course offered in our department (these are listed in the proposal).

1. Formal public health training is critical for clinicians and public health department employees, but a full Master's program at 42 credits is often beyond their reach in terms of time and money for residents/fellows and PH dept employees. A 15-credit certificate would provide essential workforce development in a format that is accessible to the intended audience.
2. Public Health certificate programs are very popular and offered by a great many schools across the country. They target the local community.
3. The program will initially be limited to clinical residents and fellows, and employees of public health departments. We anticipate 10-15 new students per year for this program. It will not be allowed to grow much beyond this until we increase capacity (e.g. additional sections of the required courses).
4. No new courses need to be offered. Existing courses have room for the additional students, though some may require an additional teaching assistant.
5. All faculty/staff resources required are currently in place and available.
6. Target start date is Fall 2017, though we would like to advertise as soon as the program is approved.

Is this major/minor/program/sequence/degree: new
 modification
 replacement

If modification or replacement please elaborate: _____

Does this change in major/minor/program/sequence/degree involve other departments? Yes No

If yes, which departments? _____

Contact person/committee: Mendel Singer, mendel@case.edu 368-1951

SIGNATURES:

DATE

Department Curriculum Chair(s)/Program Directors: *Mendel E. Singer* July 25 2016

Department Chair: *Jonathan L. Reines*

College/School Curriculum Committee Chair: _____

College/School Dean(s): _____

FSCUE Curriculum Subcommittee Chair: _____

File copy sent to: Registrar Office of Undergraduate Studies/Graduate Studies
 Other: _____



SCHOOL OF MEDICINE
CASE WESTERN RESERVE
UNIVERSITY

Jonathan L. Haines, PhD
Professor and Chairman
Department of Epidemiology and Biostatistics
Mary W. Sheldon, MD Professor of Genomic Sciences
Director, Institute for Computational Biology

Wolstein Research Building
Suite 2-529
2103 Cornell Road
Cleveland, Ohio 44106

July 24, 2016

Phone 216.368.3197

Dr. Mendel Singer,
Vice-Chair for Education
Department of Epidemiology & Biostatistics
School of Medicine
Case Western Reserve University:

Dear Mendel:

The department of Epidemiology and Biostatistics fully supports this proposal for a new graduate certificate in public health. This provides a special opportunity to provide a foundation in public health for the people on the forefront, notably clinicians and public health department employees. While we have a couple of successful programs where residents or fellows pursue a master's degree in Public Health (M.P.H.), few residency or fellowship programs are willing to give up the time necessary to pursue a 42-credit hour degree. Yet the need for clinicians to understand public health and the desire of residents and fellows to pursue this education is great. This new certificate program will provide this opportunity in a format that makes it accessible in terms of both time and money. Further, there are employees of our public health departments who never received formal training in public health and would love this opportunity, as well. This new graduate certificate will enhance the workforce development provided by CWRU to our health community.

As the program uses only existing courses, the overhead associated with this program under the proposed limited rollout is minimal and I am pleased to provide the administrative resources required. Over time, the revenue may provide the means to offer additional sections of required courses in formats more accessible to part-time students (e.g. evening, hybrid, online) thereby expanding access to our Master's program in public health, as well.

I am fully committed to supporting this new graduate certificate program.

Sincerely,

A handwritten signature in cursive script that reads "Jonathan L. Haines".

Jonathan L. Haines, PhD
Director, Institute for Computational Biology
Chair, Department of Epidemiology and Biostatistics
Interim Chair, Department of Environmental Health Sciences
Mary W. Sheldon, MD Professor of Genomic Sciences
Case Western Reserve University School of Medicine

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Mary W. Sheldon, MD Professor of Genomic Sciences
Case Western Reserve University School of Medicine

Proposal

Graduate Certificate Program in Public Health

Section I: Approved graduate program(s) sponsoring the certificate program

The Public Health Graduate Certificate Program will be sponsored by the existing Master of Public Health (MPH) Program and administered through the Department of Population and Quantitative Health Sciences (formerly Epidemiology & Biostatistics). The Department already manages the MPH Program. The Certificate Program will be administered by the Academic (Public Health Certificate) Program Director (Mendel Singer, PhD MPH), the Administrative Director of Non-Clinical Graduate Education (Nickalaus Koziura MEd), with assistance from the MPH Program Administrative Director. The Executive Committee will function as a steering committee for the Certificate Program and will be responsible for oversight of all admissions, academic, and curricular issues for the program. The Executive Committee will consist of a chairperson - the Academic Program Director - and two additional department faculty members appointed by the Vice Chair for Education, initially the MPH Program Director (currently Scott Frank MD MS) and the MPH Director of Community Based Education (currently Andrew Morris MPH). The Executive Committee will be responsible for approving individuals into the program, handling any student or faculty concerns as they arise, and periodic review of the curriculum to assure maintenance of academic standards.

Section II: Need and demand for the certificate program

The Institute for Medicine, in its “Who will keep the public healthy” report, identified the growing importance of generating well-educated public health professionals in light of the myriad of public health threats, such as globalization, scientific and technological advances, and demographic changes, facing the global population. Additionally, certificate programs are the fastest growing and second most awarded postsecondary credential. Government initiatives such as Healthy People 2020 have recognized the important role certificate programs play in preparing health care professionals for the ever changing challenge of improving public health.

The Department of Population and Quantitative Health Sciences is a proud member of the CWRU’s School of Medicine and houses the Master of Public Health Program. The School of Medicine is affiliated with some of the nation’s best hospitals, such as University Hospitals Case Medical Center, Cleveland Clinic, Veteran’s Administration Medical Center, and MetroHealth Medical Center.

The proposed Certificate Program will be administered by the Department of Population and Quantitative Health Sciences and will provide a foundation of knowledge and an opportunity for professionals in fields that intersect with public health. The proposed Certificate Program targets clinical professionals (including medical residents and fellows) and public health department employees who wish to expand or update their knowledge and training in order to improve their professional performance. The program will initially be limited to these groups until such time as additional course sections can be added to allow for expanding the program. If capacity later increases, the program will be able to accommodate additional students from medicine, physician assistant, law, business, and more.

This Certificate Program builds upon the School of Medicine's stated mission to provide excellence in medical education and to improve the health of our community. CWRU is surrounded by world class health institutions, including the CWRU affiliated hospitals: University Hospitals Case Medical Center, Cleveland Clinic, Veteran's Administration Medical Center, and MetroHealth Medical Center. Medical residents and fellows are often interested in public health education, but most are not granted the time required for the 42 credit MPH Program. Clinical staff and public health department employees also have limited tuition support rendering an MPH program too expensive. The 15 credit Public Health Certificate Program will be accessible to these professionals, filling an important role in workforce development.

We anticipate approximately 10 health care professionals per year will enroll in the program during the initial 1-3 years (starting Fall 2017 or Spring 2018), with an annual cap of 15 per class. However, as the program grows and establishes itself, and capacity increases, we anticipate opening up the program to current CWRU students.

Section III: Statement of educational objectives of the certificate program

The proposed Certificate Program is designed to provide students with a strong foundation in public health and the opportunity for specialization. After completing the program, graduates will be prepared for the continually evolving challenges of public health. Based on the core competencies for the Master of Public Health, we have developed a set of core competencies and educational objectives for the Certificate Program. Upon completion of the Certificate Program, individuals will be able to:

Domain	Core Competency	Coursework Supporting Competency
Analytical / Assessment Skills	Understand basic concepts of biostatistics in public health, including an ability to select statistical methods for data analysis, apply descriptive techniques, and interpret and communicate results of statistical analyses.	MPHP 405, MPHP 411, MPHP 483
	Understand environmental factors that impact the health of a community, including an ability to describe the impact of policy on environmental health issues, methods for environmental risk assessment, and approaches to risk management.	MPHP 439
	Analyze the effects of political, social, and economic policies on public health systems at the local, state, national, and international levels.	MPHP 411, MPHP 439
Policy Development / Program Planning Skills	Understand the policy process for improving the health status of populations, including an ability to identify the main components and issues of the organization, financing, and delivery of health services and public health systems in the US, describe legal and ethical bases for public health and health services, and communicate health policy and management issues using appropriate channels and technologies.	MPHP 439
	Develop public health programs and strategies responsive to the diverse cultural values and traditions of the communities being served.	MPHP 411, MPHP 439
Communication Skills	Demonstrate effective written and oral skills for communicating with different audiences in the context of professional public health activities.	MPHP 405, MPHP 411, MPHP 439
	Engage in dialogue and learning from others to advance public health goals	MPHP 411, MPHP 439
Community Dimensions of Practice Skills	In collaboration with others, prioritize individual, organizational, and community concerns and resources for public health programs.	MPHP 411, MPHP 439
Public Health Sciences	Explain the role of biology in the ecological model of population-based health.	MPHP 483
	Understand the role of epidemiology in the control of health problems, including an understanding of the language of epidemiology and ability to calculate basic epidemiologic measures, an ability to comprehend basic ethical and legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data, and an ability to evaluate and communicate the strengths and limitations of epidemiologic reports.	MPHP 405, MPHP 411, MPHP 483
	Understand the behavioral, social, and cultural factors related to individual and population health, including an ability to identify basic theories, concepts, and models from a range of social and behavioral disciplines that are used in public health research and practice, describe the role of social and community factors in both the onset and solution of public health problems, and apply evidence-based approaches to the development and evaluation of social and behavioral science interventions.	MPHP 405, MPHP 411, MPHP 439
	Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.	MPHP 439, MPHP 483

Section IV: Curriculum for the certificate program

A total of 5 courses (15 credit hours) will be required for the successful completion of the program. Each student must complete the four core courses and one elective course. The four core courses will provide a broad foundation of knowledge regarding this diverse field while the one elective course will allow students to identify an aspect of Public Health in which they wish to become more specialized. Additionally, students will be allowed to substitute MPHP 431 and MPHP 432 for MPHP 405 and their required elective course. Similarly, students may opt to substitute MPH 490 (research-focused epidemiology) for MPHP 483 (practice-focused epidemiology).

Every course required for this certificate is already being offered as part of the MPH Program. No new courses are needed. However to accommodate growth of the Certificate Program, additional sections, including evening offerings, may be added at some point in the future. A list of elective courses within the department can be found in Appendix I. Courses from other departments will also be considered as options for electives with permission of the Certificate program director. For example, the Nutrition department's new online course in nutrition for health care providers and the Bioethics department's course in public health ethics.

Descriptions of the required core courses are listed below:

CORE COURSES

MPHP 405 (3 Credit Hours) – Statistical Methods in Public Health

This one-semester survey course for public health students is intended to provide the fundamental concepts and methods of biostatistics as applied predominantly to public health problems. The emphasis is on interpretation and concepts rather than calculations. Topics include descriptive statistics; vital statistics; sampling; estimation and significance testing; sample size and power; correlation and regression; spatial and temporal trends; small area analysis; statistical issues in policy development. Examples of statistical methods will be drawn from public health practice. Use of computer statistical packages will be introduced.

MPHP 411 (3 Credit Hours) – Introduction to Health Behavior

Using a biopsychosocial perspective, an overview of the measurement and modeling of behavioral, social, psychological, and environmental factors related to disease prevention, disease management, and health promotion is provided.

MPHP 439 (3 Credit Hours) – Public Health Management and Policy

This course is designed to introduce students to the basics of health policy-making and includes a background on the basic structure and components of the US Health Care System (such as organization, delivery and financing). It will also cover introductory concepts in public health management, including the role of the manager, organizational design and control, and accountability. We will address relevant legal, political and ethical issues using case examples. At the end of the course, students will understand how health policy is developed and implemented in various contexts, and the challenges facing system-wide efforts at reform. This is a required course for the MPH degree. Grades will be based on a series of assignments.

MPHP 483 (3 Credit Hours) – Introduction to Epidemiology for Public Health Practice

This course is designed to introduce the basic principles and methods of epidemiology. Epidemiology has been referred to as the basic science for public health. Application of epidemiologic principles is critical to disease prevention, as well as in the development and evaluation of public policy. The course will emphasize basic methods (study design, measures of disease occurrence, measures of association, and causality) necessary for epidemiologic research. It is intended for students who have a basic understanding of the principals of human disease as well as statistics.

ALTERNATIVE COURSES FOR MPHP 405 AND ELECTIVE

MPHP 431 (3 Credit Hours) – Statistical Methods I

Application of statistical techniques with particular emphasis on problems in the biomedical sciences. Basic probability theory, random variables, and distribution functions. Point and interval estimation, regression, and correlation. Problems whose solution involves using packaged statistical programs. First part of year-long sequence.

MPHP 432 (3 Credit Hours) – Statistical Methods II

Methods of analysis of variance, regression and analysis of quantitative data. Emphasis on computer solution of problems drawn from the biomedical sciences. Design of experiments, power of tests, and adequacy of models.

ALTERNATIVE COURSE FOR MPHP 483

MPHP 490 (3 Credit Hours) – Epidemiology: Introduction to Theory and Methods

This course provides an introduction to the principles of epidemiology covering the basic methods necessary for population and clinic-based research. Students will be introduced to epidemiologic study designs, measures of disease occurrence, measures of risk estimation, and casual inference (bias, confounding, and interaction) with application of these principles to

specific fields of epidemiology. Classes will be a combination of lectures, discussion, and in-class exercises. It is intended for students who have a basic understanding of the principals of human disease and statistics.

Section V: Justification

The Public Health Certificate Program is a 15 credit hour program. Students who successfully complete the required coursework will receive a Certificate in Public Health issued by the Department of Population and Quantitative Health Sciences. Based on consideration of the critical competency-knowledge areas described above, the required 12 core credit hour coursework for the Certificate Program was identified: Statistical Methods in Public Health, Introduction to Health Behavior, Public Health Management and Policy, and Introduction to Epidemiology for Public Health Practice. Credit hour and curricula of many existing certificate programs in clinical research were also considered. A representative sample of such programs can be found in Appendix II. The examined programs range from 12 to 18 required credit hours and cover similar information. The core represents four of the five courses required for accreditation of a Master of Public Health degree. Environmental Health is not required in this certificate program due both to its less broad applicability and the desire to allow students to have an elective while keeping the program at a manageable 15 credits. This is also consistent with the new accreditation rules which drop the requirement for Environmental Health.

Section VI: Entrance, performance, and exit standards for the certificate program.

Entrance Standards: Entrance to the Certificate Program will be administered by the Department of Population and Quantitative Health Sciences. All application materials will be sent directly to the department for review and admissions decisions. Registration is done as a graduate non-degree student. Students completing the program receive a certificate directly from the department, not the University.

Individuals who want to participate in the program will complete an application form that includes a brief personal statement describing the reason(s) for seeking public health training and a recent CV or resume. Letters of recommendation are also required. Transcripts should also be submitted to the department, though this requirement may be waived for practicing clinicians.

We expect that most applicants to the Certificate Program will have already obtained a postsecondary (e.g., AS, BS, BA, MS, PhD) or advanced clinical (e.g., MD, MSN, DMD) degree

and be a current public health or clinical professional. Per CWRU School of Graduate Studies requirements, individuals who are not already graduate-degree-seeking students at CWRU must submit to the School of Graduate Studies a completed non-degree application form. Individuals who are not faculty, staff, or employees of CWRU must also submit a transcript or copy of their diploma, documenting completion of a baccalaureate degree. Per School of Graduate Studies requirements, non-degree-seeking individuals will not need to provide their Test of English as a Foreign Language (TOEFL).

Individuals will be accepted into the program based on the Executive Committee's review of the personal statement, resume/CV, letters of recommendation, transcripts, and any supporting documentation required by the School of Graduate Studies. Majority vote of acceptance by the Committee members will be necessary for admittance. Once accepted into the Certificate Program, participants will register for the courses through the Student Information System.

The program will have rolling admissions, so students may start in the Fall, the Spring, or the Summer. Deadlines to apply to program will be the following: May 1st for Summer, June 30th for Fall, and December 1st for Spring. The coursework for the Certificate will be listed on the official CWRU transcript. However, the Certificate in Public Health will be issued by the Department of Population and Quantitative Health Sciences, not the University. Although course credits will appear on the official CWRU transcript and will be transferable to fulfill requirements for advanced degrees, the certificate itself will not appear on the official CWRU transcript.

Length of Program: Once accepted into the program, individuals will have three calendar years from their first course to complete the requirements for the certificate.

Performance Standards: A grade of C or higher in each graded course and an overall GPA of 3.00 will be required for successful completion of the Certificate Program. Enrollees will be responsible for keeping track of the courses they take. To oversee students' progress in the program, enrollees will be required to submit a one-page Program Progress Checklist to the Administrative Director of Non-Clinical Graduate Education (Nickalaus Koziura MEd) at the end of each semester indicating the course(s) completed that semester. The Administrative Director of Non-Clinical Graduate Education (Nickalaus Koziura MEd) will notify the Executive Committee if any students are not making an adequate progress towards the Certificate. The Committee will make recommendations for remediation or any further action to assist students in successfully completing the program.

Exit Standards: Students who complete all required coursework will submit a checklist to the Administrative Director of Non-Clinical Graduate Education that all coursework is completed. This administrator will verify with the Registrar's Office that all requirements have been met. After this verification, the Academic Program Director will approve the awarding of the

certificate in writing, and the Administrative Director of Non-Clinical Graduate Education will issue a certificate to the enrollee, documenting completion of the program.

Section VII. Faculty expertise contributing to the certificate program.

Faculty responsible for the Certificate Program will be drawn from the CWRU School of Medicine's Department of Population and Quantitative Health Sciences, the CWRU School of Law, the MetroHealth Medical Center, and the Cleveland Clinic Lerner College of Medicine. Faculty members currently responsible for the required coursework are:

MPHP 405 – Statistical Methods in Public Health

Mendel "Ethan" Singer, PhD, MPH

Associate Professor. **Vice Chair for Education.** Case Western Reserve University. Methodologic interests include community health interventions, cost-effectiveness analysis, large databases and quality of life. Content areas of special interest include obesity, and mental health.

MPHP 411 – Introduction to Health Behavior

Erika Trapl, PhD

Assistant Professor and Associate Director, Prevention Research Center for Healthy Neighborhoods. Health behavior measurement and surveillance; Survey-based data collection methods and technology; Built environment and obesity; Adolescent sexual behavior; Health literacy; Community-based Interventions.

MPHP 439 – Public Health Management and Policy

Ruqaijah A. Yearby, JD, MPH

Associate Dean of Institutional Diversity and Inclusiveness and Professor of Law, Associate Director of the Law-Medicine Center, Oliver C. Schroeder Jr. Distinguished Research Scholar. Research interests primarily in (1) racial disparities in health care and (2) law, justice and medical research. She recently presented her work on law, justice and medical research at the Oxford Global Health and Bioethics International Conference in Oxford, England.

This course has been taught each year since 2010 by Jessica Berg of the law school, who also served as the concentration leader for Health Care Administration and Policy in the MPH program. Each year, she was contracted by the program for % effort to teach and participate in the program. Since she became Dean at the law school, she needed to transition out of her role in the MPH program. We have been transitioning her role to Ruqaiijah Yearby of the law school. First she was co-leader of the concentration with Jessica Berg, and now she is the track leader. Spring 2017 this course, MPHP 439, is being co-taught by Dean Berg and Prof. Yearby. Starting Spring 2018 Prof. yearby will be sole instructor of this course. As with Dean Berg, we have contracted with the law school for her efforts in both the course and concentration. This is expected to be a long-term relationship, as it was with Dean Berg before.

MPHP 483 – Introduction to Epidemiology for Public Health Practice

Christopher Kippes, MS

Adjunct Faculty. Case Western Reserve University. Works full-time as Director of Epidemiology, Surveillance, and Informatics (ESI) at the Cuyahoga County Board of Health (CCBH). Work interests include outbreak investigation, community health status assessments, and emergency preparedness planning. Content areas of special interest include maternal and child health.

The program has contracted with Chris Kippes since 2011 to teach this course, MPHP 483, and participate in other activities during the year, such as curriculum planning and student Capstone advising. He is on contract for both Fall and Spring semesters, while only teaching in the fall. He also supervises students doing their field practicum in his role at the Cuyahoga County Board of Health, and was a community advisor to the program prior to our contracting with him.

Alternative Courses

MPHP 431 – Statistical Methods I

Thomas Love, PhD

Associate Professor, Department of Medicine, CWRU School of Medicine; Director, Biostatistics and Evaluation Unit, Center for Health Care Research and Policy, MetroHealth Medical Center. Research interests include: biostatistics, observational studies and propensity methods, risk adjustment, health information technology, education.

MPHP 432 – Statistical Methods II

Thomas Love, PhD

Associate Professor, Department of Medicine, CWRU School of Medicine; Director, Biostatistics and Evaluation Unit, Center for Health Care Research and Policy, MetroHealth Medical Center. Research interests include: biostatistics, observational studies and propensity methods, risk adjustment, health information technology, education.

Section VIII: New resources, courses, etc., if any, necessary to support certificate program.

Managerial and administrative tasks necessary for the proposed Certificate Program will be added to the Administrative Director of Non-Clinical Graduate Education. The effort to implement the program is minimal. The MPH Program’s current courses will be able to handle the additional projected students. No additional courses or support is needed to implement the program. If there are 10 new students, then we will add a teaching assistant to each of the 4 required courses (paid 3 credits of tuition). Since enrollment will essentially be limited to local medical residents and fellows, plus public health department employees, there will be a limited number of applications to handle. Nevertheless, we are being conservative and allotting 5% effort from the Program Director and 10% effort from staff. Tuition return from each student would be 15 credits @\$1,770 = \$26,550 x .53 (tuition return rate) = \$14,071.50. For 10 students this would be about \$140,000 in tuition return.

Budget:

Program Director	\$11000
Staff	\$ 6,000
<u>Teaching Assistants</u>	<u>\$22,000</u>
Total	\$39,000

Revenue:

10 students x 15 credits x \$1,770/credit x 0.53 = \$140, 715.

Appendix I

MPHP COURSES

MPHP 403 (3 Credit Hours) - Research & Evaluation Methods.

This course is designed to provide an overview of research and evaluation methods for first-year MPH students. Through lecture, discussion and application exercises, students are introduced to the principles and processes of research and evaluation methods in public health, including formulation of research questions, aims and hypotheses and evaluation goals and objectives; literature review; development/selection of conceptual and theoretical models; quantitative, qualitative and evaluation project management; and application of ethical principles and protection of human subjects in public health research and evaluation.

MPHP 406 (3 Credit Hours) - History and Philosophy of Public Health.

The purpose of this course is to introduce students to the science and art of public health through an understanding of the history and philosophies that represent its foundation. Students will learn about the essentials of public health and applications of those precepts throughout history and in the present. The course will examine public health case histories and controversies from the past and present, in order to better understand solutions for the future. Offered as [MPHP 306](#) and [MPHP 406](#). Prereq: Enrollment limited to MPH students (Plan A or Plan B) and EPBI students or instructor consent.

MPHP 413 (3 Credit Hours) - Health Education, Communication, and Advocacy.

Historical, sociological, and philosophical factors that have influenced definitions and the practice of health education and health promotion are studied. Advanced concepts in health communication theory will also be explored. This course is designed to educate, motivate, and empower undergraduate and graduate students to become advocates for their own health, the health of their peers, and the health of the community. Offered as [MPHP 313](#) and [MPHP 413](#).

MPHP 421 (3 Credit Hours) - Health Economics and Strategy.

This course has evolved from a theory-oriented emphasis to a course that utilizes economic principles to explore such issues as health care pricing, anti-trust enforcement and hospital mergers, choices in adoption of managed care contracts by physician groups, and the like. Instruction style and in-class group project focus on making strategic decisions. The course is directed for a general audience, not just for students and concentration in health systems management. Offered as [ECON 421](#), [HSMC 421](#), and [MPHP 421](#).

MPHP 429 (3 Credit Hours) - Introduction to Environmental Health.

This survey course will introduce students to environmental and occupational health topics including individual, community, population, and global issues. Students will develop an understanding of the human health impacts of physical, biological, and chemical agents in the environment and workplace including basic principles of toxicology. Presentation of concepts including risk assessment, communication and management as well as discussion of environmental and occupational practices, policies and regulations that promote public and population health is included.

MPHP 433 (3 Credit Hours) - Community Interventions and Program Evaluation.

This course prepares students to design, conduct, and assess community-based health interventions and program evaluation. Topics include assessment of need, evaluator/stakeholder relationship, process vs. outcome-based objectives, data collection, assessment of program objective achievement based on process and impact, cost-benefit analyses, and preparing the evaluation report to stakeholders. Recommended preparation: [EPBI 490](#), [EPBI 431](#), or [MPHP 405](#). Offered as [EPBI 433](#) and [MPHP 433](#). Prereq: [MPHP 411](#)

MPHP 450 (3 Credit Hours) - Clinical Trials and Intervention Studies.

Issues in the design, organization, and operation of randomized, controlled clinical trials and intervention studies. Emphasis on long-term multicenter trials. Topics include legal and ethical issues in the design; application of concepts of controls, masking, and randomization; steps required for quality data collection; monitoring for evidence of adverse or beneficial treatment effects; elements of organizational structure; sample size calculations and data analysis procedures; and common mistakes. Recommended preparation: [EPBI 431](#) or consent of instructor. Offered as [EPBI 450](#) and [MPHP 450](#).

MPHP 451 (3 Credit Hours) - Principles of Genetic Epidemiology.

A survey of the basic principles, concepts and methods of the discipline of genetic epidemiology, which focuses on the role of genetic factors in human disease and their interaction with environmental and cultural factors. Many important human disorders appear to exhibit a genetic component; hence the integrated approaches of genetic epidemiology bring together epidemiologic and human genetic perspectives in order to answer critical questions about human disease. Methods of inference based upon data from individuals, pairs of relatives, and pedigrees will be considered. Offered as [EPBI 451](#), [GENE 451](#), and [MPHP 451](#).

MPHP 456 (3 Credit Hours) - Health Policy and Management Decisions.

This seminar course combines broad health care policy issue analysis with study of the implications for specific management decisions in organizations. This course is intended as an applied, practical course where the policy context is made relevant to the individual manager. Offered as [HSMC 456](#) and [MPHP 456](#).

MPHP 460 (3 Credit Hours) - Introduction to Health Services Research.

This survey course provides an introduction to the field of Health Services Research and an overview of key health services research concepts and methods, including conceptual frameworks and models; outcomes research; risk adjustment; disparities in health care; policy/health care systems; cost and cost-effectiveness; quality of life, process improvement; patient satisfaction; patient safety; health economics; statistical modeling techniques; and qualitative research methods. Offered as [EPBI 460](#) and [MPHP 460](#).

MPHP 464 (3 Credit Hours) - Obesity and Cancer: Views from Molecules to Health Policy.

This course will provide an overview of the components of energy balance (diet, physical activity, resting metabolic rate, dietary induced thermogenesis) and obesity, a consequence of long term positive energy balance, and various types of cancer. Following an overview of energy balance and epidemiological evidence for the obesity epidemic, the course will proceed with an introduction to the cellular and molecular biology of energy metabolism. Then, emerging research on biologically plausible connections and epidemiological associations between obesity and various types of cancer (e.g., colon, breast) will be presented. Finally, interventions targeted at decreasing obesity and improving quality of life in cancer patients will be discussed. The course will be cooperatively-taught by a transdisciplinary team of scientists engaged in research in energy balance and/or cancer. Didactic lectures will be combined with classroom discussion of readings. The paper assignment will involve application of course principles, lectures and readings. Offered as EBPI 464, [MPHP 464](#).

MPHP 466 (3 Credit Hours) - Promoting Health Across Boundaries.

This course examines the concepts of health and boundary spanning and how the synergy of the two can produce new, effective approaches to promoting health. Students will explore and analyze examples of individuals and organizations boundary spanning for health to identify practice features affecting health, compare and contrast practices and approaches, and evaluate features and context that promote or inhibit boundary spanning and promoting health. Offered as [MPHP 466](#), [EPBI 466](#), [SOCI 466](#), [NURS 466](#) and [BETH 466](#). Prereq: Graduate student status or instructor consent.

MPHP 467 (1 - 3 Credit Hours) - Comparative and Cost Effectiveness Research.

Comparative effectiveness research is a cornerstone of healthcare reform. It holds the promise of improved health outcomes and cost containment. This course is presented in a convenient 5-day intensive format in June. There are reading assignments due prior to the 1st session. Module A, Days 1-2: Overview of comparative effectiveness research (CER) from a wide array of perspectives: individual provider, institution, insurer, patient, government, and society. Legal, ethical and social issues, as well as implications for population and public health, including health disparities will also be a component. Module B, Day 3: Introduction to the various methods, and their strengths, weaknesses and limitations. How to read and understand CER

papers. Module C, Days 4-5: Cost-Effectiveness Analysis. This will cover costing, cost analysis, clinical decision analysis, quality of life and cost-effectiveness analysis for comparing alternative health care strategies. Trial version of TreeAge software will be used to create and analyze a simple cost-effectiveness model. The full 3-credit course is for taking all 3 modules. Modules A or B can be taken alone for 1 credit. Modules A and B or Modules B and C can be taken together for a total of 2 credits. Module C cannot be taken alone. Some combination of term paper, project and/or exam will be due 6 weeks later. Offered as [EPBI 467](#) and [MPHP 467](#).

MPHP 468 (3 Credit Hours) - The Continual Improvement of Healthcare: An Interdisciplinary Course.

This course prepares students to be members of interprofessional teams to engage in the continual improvement in health care. The focus is on working together for the benefit of patients and communities to enhance quality and safety. Offered as [EPBI 468](#), [MPHP 468](#), [NURS 468](#).

MPHP 475 (3 Credit Hours) - Management of Disasters Due to Nature, War, or Terror.

The purpose of this course is to make participants aware of the special needs of children and families in disaster situations and understand public health approaches to address these needs. The learning objectives for this course are: 1) Identify the most important problems and priorities for children in disaster situations, 2) Identify the organizations most frequently involved in providing assistance in disaster situations and define their roles and strengths, 3) Describe the reasons why children are among the most vulnerable in disaster events, 4) Conduct emergency nutritional assessments for children, 5) Develop health profiles on displaced children and plan interventions based on results, 6) Define common psychosocial issues of children and the means to address them, 7) List basic points of international law including the Geneva Convention that relate to all persons involved in disaster situations, 8) List important security issues, 9) Appreciate ethical issues involved in disaster situations and employ skills of cross cultural communication, 10) Recognize and respond to special issues for children involved in biological and chemical terrorist attacks.

MPHP 484 (1 - 3 Credit Hours) - Global Health Epidemiology.

This course provides a rigorous problem-centered training in the epidemiology, prevention, treatment, and control of infectious diseases and, more generally, global health. This is an advanced epidemiology that embraces an active learning environment. Students are expected to invest time out of the classroom reading and working with classmates. Classes will be conducted with discussions, debates, group projects, and group presentations. By taking this course, students will develop a framework for interpreting, assessing, and performing epidemiologic research on issues of global importance. The course will be divided into three modules: 1) Global Health Epidemiology 2) Helminth Epidemiology, and 3) Epidemiology of Disease Elimination. Each module is worth 1 credit hour and may be taken separately. Each module will have a separate project and/or exam. The final exam time will be used for group

presentations and panel discussion. Active class participation is required through discussions, case studies, and group projects. Offered as [EPBI 484](#), [INTH 484](#), and [MPHP 484](#).

MPHP 485 (3 Credit Hours) - Adolescent Development.

Adolescent Development can be viewed as the overriding framework for approaching disease prevention and health promotion for this age group. This course will review the developmental tasks of adolescence and identify the impact of adolescent development on youth risk behaviors. It will build a conceptual and theoretical framework through which to address and change adolescent behavior to promote health.

MPHP 499 (1-18 Credit Hours) - Independent Study.

MPHP 510 (3 Credit Hours) - Health Disparities.

This course aims to provide theoretical and application tools for students from many disciplinary backgrounds to conduct research and develop interventions to reduce health disparities. The course will be situated contextually within the historical record of the United States, reviewing social, political, economic, cultural, legal, and ethical theories related to disparities in general, with a central focus on health disparities. Several frameworks regarding health disparities will be used for investigating and discussing the empirical evidence on disparities among other subgroups (e.g., the poor, women, uninsured, disabled, and non-English speaking populations) will also be included and discussed. Students will be expected to develop a research proposal (observational, clinical, and/or intervention) rooted in their disciplinary background that will incorporate materials from the various perspectives presented throughout the course, with the objective of developing and reinforcing a more comprehensive approach to current practices within their fields. Offered as [CRSP 510](#), [EPBI 510](#), [MPHP 510](#), [NURS 510](#), and [SASS 510](#).

MPHP 532 (3 Credit Hours) - Health Care Information Systems.

This course covers concepts, techniques and technologies for providing information systems to enhance the effectiveness and efficiency of health care organizations. Offered as [HSMC 432](#) and [MPHP 532](#).

EPBI COURSES

EPBI 411(3 Credit Hours) - Introduction to Health Behavior.

Using a biopsychosocial perspective, an overview of the measurement and modeling of behavioral, social, psychological, and environmental factors related to disease prevention, disease management, and health promotion is provided. Offered as [EPBI 411](#) and [MPHP 411](#). Prereq: Enrollment limited to MPH students (Plan A or Plan B) and EPBI students or consent.

EPBI 414 (3 Credit Hours) - Introduction to Statistical Computing.

This course introduces the use of computers in epidemiologic investigations and biostatistical applications. Topics covered include the use of the Internet to access and obtain publicly available databases, database and spreadsheet concepts, and developing a sound approach to analysis planning and implementation. The majority of the course will focus on instruction in the use of SAS software for advanced database management and manipulation and basic statistical analyses, with parallel applications in R to exploit its features. Primary emphasis is on developing the knowledge and familiarity required for running these particular programs in connection with data collection, analysis, and presentation of results in clinical studies. Students will be required to complete assignments using personal computers using Windows operating systems and/or computer systems maintained by the department. Students should expect weekly assignments to reinforce lecture concepts. Knowledge of basic statistics is beneficial, as this course does not teach inferential statistical analysis in detail; but it is not vital to learning the

EPBI 423 (3 Credit Hours) - Dissemination and Implementation Science for Health Promotion.

This graduate-level course introduces concepts, skills, and methods for systematically disseminating and implementing evidence-based interventions for population health promotion. The course includes a focus on developing partnerships and transdisciplinary research teams, applying theories and frameworks to guide dissemination and implementation (D & I) science, examining research methods and designs appropriate for conducting D & I research at different and multiple levels of intervention (e.g., clinical, community, policy), and exploring channels for effectively communicating evidence to inform decision-making and practice in diverse contexts. Recommended Preparation: [EPBI 411](#) or grad. level behavioral theory equivalent; EBPI 490 or [MPHP 483](#) or grad. level research methods equivalent.

EPBI 440 (3 Credit Hours) - Introduction to Population Health.

Introduces graduate students to the multiple determinants of health including the social, economic and physical environment, health services, individual behavior, genetics and their interactions. It aims to provide students with the broad understanding of the research development and design for studying population health, the prevention and intervention strategies for improving population health and the disparities that exist in morbidity, mortality, functional and quality of life. Format is primarily group discussion around current readings in the field; significant reading is required.

EPBI 499 (1-18 Credit Hours) - Independent Study.

EPBI 515 (3 Credit Hours) - Secondary Analysis of Large Health Care Data Bases.

Development of skills in working with the large-scale secondary data bases generated for research, health care administration/billing, or other purposes. Students will become familiar with the content, strength, and limitations of several data bases; with the logistics of obtaining access to data bases; the strengths and limitations of routinely collected variables; basic techniques for preparing and analyzing secondary data bases and how to apply the techniques to initiate and complete empirical analysis. Recommended preparation: [EPBI 414](#) or equivalent; [EPBI 431](#) or [MPHP 405](#).

EPBI 550 (3 Credit Hours) - Meta-Analysis & Evidence Synthesis.

Systematic reviews use reproducible methods to systematically search the literature and synthesize the results of a specific topic area. Meta-analysis is a specific analytic technique used to pool results of individual studies. Systematic reviews are useful ways to establish one's knowledge in a particular field of study, and can highlight gaps in research which can be pursued in future work. They can also inform the background of a grant. This course is designed to introduce students to the methods of conducting a high quality systematic review. We will cover the design, methods, and analytic techniques involved in systematic reviews. These concepts will prepare students to conduct their own systematic review or evaluate the systematic reviews of others. Sessions will be lectures, labs, and presentations. Topics include developing a search strategy, abstracting key data, synthesizing the results qualitatively, meta-analytic techniques, grading the quality of studies, grading the strength of the evidence, and manuscript preparation specific to systematic reviews. Offered as [CRSP 550](#) and [EPBI 550](#). Prereq: [CRSP 401](#), [EPBI 431](#), [MPHP 405](#), [NURS 532](#) or Requisites Not Met permission.

Appendix II

Example Certificate Programs

Institution	Required Coursework Topics	Credit Hr Requirements
University at Albany	<ul style="list-style-type: none"> • Principles and Methods of Epidemiology • Principles of Public Health • Principles of Statistical Interference • Health Care Organization, Delivery, and Financing • Social and Behavioral Aspects of Public Health • Environmental Health 	18 Credit Hours
George Washington University	<ul style="list-style-type: none"> • Biological Concepts • Biostatistical applications • Epidemiology • Environmental and Occupational Health • Management and Policy • Social and Behavioral Sciences 	15 Credit Hours
University of North Carolina	<ul style="list-style-type: none"> • Environmental Health • Social and Behavioral Sciences • Principles of Epidemiology • Health Policy and Management 	15 Credit Hours
University of Illinois at Chicago	<ul style="list-style-type: none"> • Concepts and Practice • Behavioral Sciences • Policy and Advocacy • Community Assessment • Epidemiology 	12 Credit Hours
University of Vermont	<ul style="list-style-type: none"> • Public Health and Health Policy • Epidemiology • Biostatistics • Environmental Public health • Health Policy and Management 	18 Credit Hours
University of Connecticut	<ul style="list-style-type: none"> • Epidemiology and Biostatistics • Health Administration • Environmental Health • Social and Behavioral Foundations • Law and Public Health 	12 Credit Hours
University of Missouri	<ul style="list-style-type: none"> • Principles of Public Health • Statistical Methods • Principles of Epidemiology • Human Health • Social and Behavioral Sciences 	12 Credit Hours