REQUEST FOR AUTHORIZATION TO IMPLEMENT
A DOCTOR OF PHILOSOPHY IN EPIDEMIOLOGY
AT THE UNIVERSITY OF WISCONSIN-MILWAUKEE

ABSTRACT
The University of Wisconsin-Milwaukee (UW-Milwaukee) Joseph J. Zilber School of Public Health (Zilber School) proposes to establish a Doctor of Philosophy (PhD) in Epidemiology. The development of this proposed program responds to ongoing public health challenges in Wisconsin, as well as critical workforce needs in Wisconsin and nationally. The UW-Milwaukee Zilber School is also under review to become the first accredited school of public health in Wisconsin, and a PhD degree program in Epidemiology, a fundamental discipline in the field of public health, will aid in this effort. A PhD provides the highest degree in Epidemiology, preparing graduates for many career paths, including academia, non-governmental organizations, and public service at all levels of local, national and international government. The proposed program will be comprised of 75 credits and will meet requirements outlined by the national Council on Education for Public Health (CEPH). The goal of the proposed program will be for students to acquire rigorous theoretical and methodological training needed to conduct independent research that examines the distribution and determinants of health and how to translate epidemiologic findings to public health policy. Establishing this program at UW-Milwaukee will provide students with access to advanced epidemiological training at a top tier Research 1 (R1) designated public university in a diverse urban setting.

PROGRAM IDENTIFICATION
Institution Name
University of Wisconsin-Milwaukee

Title of Proposed Program
Doctor of Philosophy in Epidemiology

Degree/Major Designations
Doctor of Philosophy (PhD)

Mode of Delivery
Residential program at the University of Wisconsin-Milwaukee consisting of classroom- and technology-based instruction, in addition to faculty-guided, student conduct of independent research.

Single Institution or Collaboration
Single Institution

Projected Enrollments by Year Five
Table 1 details enrollment and graduation projections for the first five years after planned program implementation. We plan to admit 3 students in Fall 2017, and 2 students every year thereafter. The expected time to graduation for full-time students is 4.5 years post bachelor’s degree and 3.5 years post-MPH. We expect to graduate 3 students by the end of year five.

In Table 1 below, based on program retention data for other Zilber School PhD programs, it is expected that the attrition rate in the program will be minimal (we estimate attrition of 1 student from year 1 to year 2). It is also anticipated that the program will enroll a mix of in-state (50%) and out-of-state (50%) students.
Table 1. Enrollment and graduation projections from Years 1 to 5

<table>
<thead>
<tr>
<th>Year</th>
<th>New students admitted</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
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</table>

Tuition Structure
The program will use the tuition structure for residential delivery of graduate-level coursework at UW-Milwaukee. Tuition and fee costs for graduate students who are enrolled full-time currently are $5894 for residents and $12413 for non-residents, per semester. Costs for graduate students that have achieved dissertator status and are enrolled in 3 credits is currently $2032 for residents and $2632 for non-residents, per semester. These figures exclude segregated fees, currently $701 per semester for full-time enrollment, and online course fees. Online course tuition is charged at a flat rate of $2500 per three-credit course. The fee is assessed separately from face-to-face courses and is applicable to both resident and non-resident students.

Department or Functional Equivalent
The proposed program will reside within the Joseph J. Zilber School of Public Health

College, School, or Functional Equivalent
The proposed program will be housed within the Joseph J. Zilber School of Public Health

Proposed Date of Implementation
Fall 2017

INTRODUCTION

Rationale and Relation to Mission
This Request for Authorization to Implement a PhD in Epidemiology is put forward both to meet critical workforce development needs and to further Zilber School’s mission to address population health and health equity in Wisconsin and beyond. Characterized by the national Centers for Disease Control and Prevention (CDC) as the "basic science of public health," the Epidemiology PhD program trains students to discern the determinants and distribution of diseases and health conditions at the population level, as well as the application of this research to the control of health problems.¹ As outlined in the most recent Wisconsin Public Health Workforce Report,² Wisconsin continues to face a shortage of competent and technically skilled public health workers, particularly in the face of an aging workforce. Wisconsin and Milwaukee also continue to face challenges to achieving the benchmarks set by CDC’s Healthy People 2020 initiative³

and the Wisconsin Healthiest 2020 Plan. The Health of Wisconsin Report Card published in 2013 graded the overall health of the people of Wisconsin a “B minus”, health disparities in Wisconsin a “D”, and the health of African Americans and populations in large urban areas (e.g., Milwaukee County), were given an “F”. Public health is the responsibility of the state and trained epidemiologists are essential to ensuring the health of Wisconsinites in the face of these documented and emerging health threats. The proposed PhD program will be unique in its focus on translating epidemiologic findings into actionable interventions and policy strategies to promote population health and health equity, and will train leaders to address these challenges.

As one of the fundamental disciplines in the field of public health, a PhD program in Epidemiology is critical to further raise the national profile of UW-Milwaukee’s Zilber School, and position UW-Milwaukee to be both a leader in the University of Wisconsin System and nationally in doctoral training in epidemiology. The PhD program will enhance UW-Milwaukee’s status as an R1 top-tier research university by providing students with the rigorous methodological and theoretical training needed to conduct independent research. Doctoral students will contribute to the creation of a vibrant learning-research-teaching community, which will assist the school in maintaining R1 research status. Through a combination of coursework in advanced epidemiologic methods, applied analytic skills for epidemiologic research and the translation of epidemiologic findings to public health policies, students will be prepared to engage with diverse communities, organizations, and government agencies. Students will develop rigorous, independent epidemiologic research that addresses current public health challenges.

In light of the importance of advanced epidemiologic training to educate public health workers, plans to develop a PhD in Epidemiology have been underway since the Zilber School and its list of proposed academic degrees, including the proposed PhD in epidemiology, were approved by the UW System Board of Regents in June 2008. With the Zilber School’s recent graduation of the first MPH student in Epidemiology and having attained in summer 2016 the minimum number of faculty required for a PhD by the Council on Education for Public Health (CEPH), the school is now prepared to launch its planned PhD in Epidemiology. Support for this program has been expressed both externally by our colleagues in the Department of Population Health Sciences, School of Medicine and Public Health, UW-Madison (home of the only other PhD program in Epidemiology in the state), Chair, Dr. Javier Nieto and Vice Chair, Dr. Maureen Durkin, as well as internally at UW-Milwaukee by the Dean, College of Health Sciences, Dr. Ron Cisler, and the Dean, College of Nursing, Dr. Kim Litwack (see attached Letters of Support).

The proposed PhD in Epidemiology program furthers the mission of the UW System by providing education and fostering research intended to “improve the human condition.” This program also extends UW-Milwaukee’s institutional mission as “a major urban doctoral university” and contributes to the following goals from the UW-Milwaukee Select Mission (http://www4.uwm.edu/discover/mission.cfm): (i) To develop and maintain high quality ... graduate ... programs appropriate to a major urban doctoral university; (ii) To engage in a sustained research effort which will enhance and fulfill the University’s role as a doctoral institution of academic and professional excellence; (iii) To attract highly qualified students who demonstrate the potential for intellectual development, innovation, and leadership for their communities; and (iv) To promote public service and research efforts directed toward meeting

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the social, economic and cultural needs of the state of Wisconsin and its metropolitan areas. Finally, the PhD serves to promote the mission of the Zilber School to “advance population health, health equity, and social and environmental justice among diverse communities in Milwaukee, the state of Wisconsin, and beyond through education, research, community engagement, and advocacy for health-promoting policies and strategies.”

**Need as Suggested by Current Student Demand**

There appears to be clear demand for training in Epidemiology from public health workers across the U.S, as reported by the 2013 *Council of State and Territorial Epidemiologists Epidemiology Capacity Assessment* (CSTE). This report found that more than 30% of current epidemiologists at the entry and mid-levels expressed a need for additional training.

The PhD Epidemiology program at the Zilber School will be the only such program in a CEPH-accredited school of public health in Wisconsin. Currently, every other Midwestern state, has at least one CEPH-accredited Epidemiology PhD program. CEPH accreditation provides students full access to employment and fellowship opportunities in public health. Moreover, our program is located at a public university with a direct mission to increase diversity among students in higher education. We anticipate that the program’s unique focus in the diverse, urban Milwaukee community, UW-Milwaukee’s status as an R1 research designated public university, as well as its accessible tuition structure, will make it appealing to both in- and out-of-state students. Further, the program will offer the flexibility of academic or professional pathways. Coursework is aimed at producing highly trained professionals prepared to excel in academia and in leading real world change.

We anticipate demand from both in-state and out-of-state undergraduate and master’s students, as well as health care professionals and public health practitioners seeking additional training. The strongest demand for our program we expect will be from our own Zilber School MPH students. Indeed, there are currently at least two Zilber School students who have expressed interest in applying to the program immediately in Summer 2017, and several of our 13 currently enrolled Epidemiology MPH students have indicated interest in the program. We also anticipate interest from MPH students enrolled in other regional programs at UW-Madison, UW-La Crosse, the on-line MPH program at the Medical College of Wisconsin, from regional schools of public health, including the University of Illinois, Chicago and University of Minnesota Schools of Public Health, as well as students from other national MPH and master’s programs.

We anticipate interest in the program from undergraduates with a variety of majors, including social science, pre-medicine and now public health. According to *The Association of Schools and Programs of Public Health* (ASPPH), there are currently 16 institutions nationally that offer undergraduate programs in public health, of which 3 are in the Midwest (University of Illinois, Chicago, University of Kentucky, and St. Louis University), from which we may also draw students. Unlike most other established PhD programs in Epidemiology that require a Master’s degree before enrollment in the PhD, the UW-Milwaukee program will also offer the opportunity to enroll directly after completion of a Bachelor’s degree.

As epidemiology is distinct from other fields in its orientation and methodological approach, it is anticipated that the PhD in Epidemiology will create minimal reduction in demand for other PhD programs at Zilber School and UW-Milwaukee. We also anticipate coursework in the program to

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be of interest to students in other degree programs at UW-Milwaukee, in addition to enrolled students at UW-Madison, and the Medical College of Wisconsin. Moreover, almost all established schools of public health successfully sustain PhD programs in epidemiology, and the addition of the Epidemiology PhD will further elevate the national profile of the Zilber School.

**Need as Suggested by Market Demand**

According to the US Department of Labor, Bureau of Labor Statistics, national employment of epidemiologists is projected to grow 6% from 2014 to 2024. Continued improvements in medical recordkeeping and mapping software, greater requirements for hospitals to track health outcomes, as well as local population health concerns and emerging health threats are expected to contribute to an increase in the need and number of professional epidemiologists\(^9\). For example, with the expanded use of electronic medical records, there is an unprecedented opportunity for PhD trained epidemiologists to utilize these data to generate new knowledge about the distribution and determinants of health and healthcare access. The 2009 National Assessment of Epidemiology Capacity (ECA) done by the CSTE indicated that the proportion of state health department epidemiologists intending to retire or change careers over the next 5 years had increased since 2006 (17% vs 11%, respectively). With attrition, the ECA estimated that there was a need for 1374 epidemiologists in the US or a 50% increase in 2013\(^10\).

**Emerging Knowledge and Advancing New Directions**

The proposed program is closely aligned with recommendations for the future of education in public health generated by the *American Schools and Programs of Public Health Framing the Future: The Second 100 Years of Education for Public Health Task Force*\(^11\). Specifically, our curriculum emphasizes two key areas, 1) the social determinants of health and disparities in health and 2) an explicit focus on the policy implications of epidemiologic research.

**DESCRIPTION OF PROGRAM**

**General Structure**

The PhD in Epidemiology is the highest degree for epidemiology, preparing graduates for research careers in many settings, including academia, non-governmental organizations, and public service at all levels of national and international government. Students will be trained to conduct independent epidemiologic research both in applied and academic settings with an emphasis on the translation of epidemiologic findings into policies that promote population health, social justice and health equity. Coursework focuses on theory, quantitative and qualitative methods, community-engagement, and the intersection of epidemiologic research and public health policy. Students must complete 66 graduate credits beyond the bachelor's degree, plus an additional 9 credits dedicated toward dissertation writing and research. Completion of a high quality doctoral dissertation based on original research is a key feature of the academic program. Students’ capacity to complete dissertation research is supported by a rigorous curriculum designed to bring students to the intellectual forefront of the discipline.

**Institutional Program Array**

The Zilber School offers both applied public health and research-focused degrees through five program areas: Epidemiology, Community and Behavioral Health Promotion, Biostatistics, Biostatistics,


Public Health Policy and Administration, and Environmental Health Sciences. The school currently offers an MPH degree with a specialization in each of the above areas. It also offers a PhD in Public Health with a focus in either Community and Behavioral Health or Biostatistics, as well as a PhD in Environmental Health Sciences. The proposed PhD in Epidemiology will be the only such program at UW-Milwaukee.

Other Programs in the University of Wisconsin System
There is currently only one other UW System school that offers a PhD in Epidemiology. The UW-Madison School of Medicine and Public Health, Department of Population Health Sciences offers a PhD in Epidemiology and a PhD in Population Health with an option in Epidemiology. The proposed Epidemiology PhD at the Zilber School is distinct from these existing degree programs in a number of ways. First, the proposed PhD program in Epidemiology at UW-Milwaukee will be the only program at a CEPH-accredited school of public health in Wisconsin. Second, the Zilber School’s diverse urban location and public health mission focused on prevention, health equity, and the social determinants of health offers students distinct opportunities for on-the-ground engagement with the significant public health challenges facing the Milwaukee region. Finally, our proposed program is nationally distinct given its focus on the integration of a public health policy perspective into epidemiologic training. The presence of two complementary PhD programs in Epidemiology in Wisconsin will provide opportunities for training synergy and enhanced research collaboration between the two institutions as we educate future leaders from Wisconsin in epidemiology (see Letter of Support, UW-Madison).

Collaborative Nature of the Program
There is strong collaboration across the five program areas at the Zilber School, with the proposed PhD incorporating shared coursework across the school. There are also increasing efforts to foster collaboration across campus. Our proposed PhD shares four 3-credit courses with other existing PhD programs at the Zilber School and builds on existing coursework in the Zilber School Master’s in Public Health (MPH) in Epidemiology, with at least 24 credits toward the PhD obtained through MPH coursework. Additionally, depending on research interests, students may enroll in elective coursework in other programs on the UW-Milwaukee campus.

Diversity
The Zilber School at UW-Milwaukee was founded in 2009 with an explicit commitment to “advancing population health, health equity, and social and environmental justice among diverse communities in Milwaukee, the state of Wisconsin, and beyond”. Consistent with this mission, the access mission of the UW-Milwaukee, the UW System Doctoral Cluster Mission, as well as the UW-Milwaukee Select Mission statements, we aim, with this Epidemiology PhD program to provide academic opportunities for a diverse student body that reflects the social and racial/ethnic composition of the surrounding community. To this end, we have an explicit goal of recruiting and admitting students from populations that have been systematically underrepresented in higher education including women, financially or educationally disadvantaged individuals and other marginalized groups.

Epidemiology PhD program faculty also strive to integrate divergent theoretical, epistemological, and methodological approaches to epidemiologic research that aim to identify and address health inequities in a broad range of areas including pediatric health, environmental health, mental health and cancer prevention, as well as infectious disease, aging, and nutritional epidemiology. In addition, the proposed PhD program explicitly employs pedagogical approaches aimed at training students how to not only improve overall population health but also promote social and health equity in Milwaukee, Wisconsin, nationally and worldwide.
Student Learning Outcomes and Objectives
Graduates of the doctoral program in Epidemiology will be able to meet the following Epidemiology PhD program competencies:

1. Integrate knowledge regarding biological, behavioral, cultural, and sociopolitical mechanisms within historical contexts operating at multiple levels of causation to shape hypotheses regarding population health and health equity.
2. Critically evaluate normative dominant theories of the distribution and determinants of health and implications for epidemiologic knowledge production.
3. Apply theories across multiple disciplines to frame and interpret epidemiologic research with attention to relevant policy and practice implications.
4. Critically appraise the scientific literature to identify strengths and limitations of existing methodological approaches in the field of Epidemiology.
5. Design and conduct independent, interdisciplinary epidemiologic research using appropriate qualitative and/or quantitative methods demonstrating knowledge of theory, study design, sources of bias and other limitations to causal inference.
6. Explain the principles and methods of conducting community-engaged epidemiologic research to promote population health and health equity.
7. Engage ethically in interactions with study participants, community and colleagues, conduct of research, analysis of data, reporting of findings, and formulation of policy recommendations.
8. Demonstrate respect for diverse values, beliefs, and cultures and the dignity of individuals and communities in the conduct of research.
9. Communicate epidemiologic concepts, methods and research findings to a range of audiences with attention to ethical, policy, and practice implications including how findings represent and impact study participants and their communities.
10. Translate epidemiologic findings into policy recommendations and advocacy strategies that promote population health and health equity.

Assessment of Objectives
The proposed program will continuously assess student learning both at the course and program level. At the course level, learning objectives will be developed that align with the competencies listed above (see Student Learning Outcomes); learning will be assessed via problem sets, group projects, oral presentations, in-class participation, exams and written assignments. At the program level, student learning will be assessed in two on-going ways. First, students will provide a self-assessment of competencies achieved each semester and discuss progress and future goals for achieving competencies. The Epidemiology program will also administer a graduate survey to students asking them to report the level at which they achieved competencies by graduation. The Zilber School PhD Coordinating Committee will collect and summarize survey results and evaluate improvements on a yearly basis.

The second way in which student learning at the program level will be assessed is via a PhD Preliminary Examination to be administered to students before advancement to PhD candidacy (i.e., dissertator) status. The exam will consist of two parts. The first will be an in-class examination that focuses on competencies related to 1) core epidemiologic methods, 2) analytic methods relevant to epidemiologic research, and 3) policy implications of epidemiologic research. The second will be a take-home exam in which students demonstrate competencies related to knowledge of selected epidemiology content in the range of research areas in which students may specialize, such as chronic disease, infectious disease and/or environmental epidemiology. Both portions of the examination serve to assess achievement of competencies.
Dissertation

Students who have achieved candidate status will develop, in consultation with their primary faculty advisor, a dissertation research plan and form a dissertation advisory committee. The dissertation research plan should include an abstract, background, outline of specific aims and hypotheses, (articulated as three distinct but related research questions), preliminary findings (if applicable), research methods proposed, public health significance of the proposed research and references. The composition of the dissertation committee must be in compliance with the rules and regulations of the Graduate School. The candidate then submits a written dissertation plan to be reviewed and formally approved by the dissertation advisory committee. The research plan must clearly outline the student’s obligation for completing an original piece of work of sufficient quality, as determined by the committee. The review and approval process for the dissertation research plan will include a formal presentation to the committee. Once the approved dissertation research and write-up has been completed, the candidate will submit the original work to the committee for review. The candidate must also orally defend the dissertation in a publically announced presentation that is open to the academic community. Once the Chair of the Zilber School has certified completion of all requirements, the candidate will be awarded the PhD in Epidemiology and encouraged to submit it for publication.

Program Curriculum

The program will meet the above outlined competencies by providing didactic coursework, opportunities to conduct both guided and independent research, and professional development. The curriculum consists of 75 credits to degree completion beyond the bachelor’s degree – 66 credits of didactic coursework and 9 credits toward dissertation writing and research. It meets all of the competencies and requirements established by CEPH\(^{12}\). Students will take 24 credits of coursework to introduce them to the principles of Epidemiology, Biostatistics, public health policy and community engagement. They will take 6 credits of ‘'selective coursework in subject matter areas, 6 credits of coursework in more advanced analytic methods, and 3 credits of an elective in an area that aligns with their research interests. They will also take 9 credits of advanced coursework in both theoretical and applied epidemiology, in addition to 6 credits in more advanced policy analysis and translation of epidemiologic findings to policy-interventions. Additionally, students will take 12 credits of PhD-level coursework in research ethics, community-engagement, and a seminar in current issues in epidemiology. The latter will incorporate leadership training and career development to train future leaders in public health practice and academia. Table 2 below provides an overview of a suggested program of study.

Table 2. Suggested Course Plan for PhD in Epidemiology

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<thead>
<tr>
<th>Fall 1 (12 credits)</th>
<th>Spring 1 (12 credits)</th>
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<tr>
<td>PH700 Structures of Inequality &amp; Pop. Health (3)</td>
<td>PH705 Principles of Public Health Policy &amp; Admin (3)</td>
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<tr>
<td>PH702 Introduction to Biostatistics (3)</td>
<td>PH759 Applied Quantitative Methods for Studying Population Health &amp; Health Disparities (3)</td>
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<td>PH704 Principles &amp; Methods of Epidemiology (3)</td>
<td>PH761 Epidemiology Field Methods (3)</td>
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<td>PH801 Seminar in Public Health Research (3)</td>
<td>PH864 Research Ethics in Epi. &amp; Public Health (3)</td>
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<td>Fall 2 (12 credits)</td>
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<td>PH758 Social Epidemiology (3)</td>
<td>PH763 Epidemiology in Action for Equity (3)</td>
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<td>PH823 Applied Analysis of Binary Outcomes in Public Health Research (3)</td>
<td>PH804 Advanced Epidemiology (3)</td>
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<td>PH870 Epidemiology in Health Policy &amp; Advocacy (3)</td>
<td>PH960 Current Issues in Epidemiology (3)</td>
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<tr>
<td>PH904 Survey of Analytic Methods for Epid. (3)</td>
<td>†Subject matter elective, analytic elective and other elective (6)</td>
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<th>Fall 4 (3 credits)</th>
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<tr>
<td>PH990 Research &amp; Dissertation (3 repeatable)</td>
<td>PH990 Research and Dissertation (3 repeatable)</td>
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<tr>
<th>Fall 5 (3 credits)</th>
<th>Spring 5 (as needed; required program credits attained after 4.5 years)</th>
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<tbody>
<tr>
<td>PH990 Research and Dissertation (3 repeatable)</td>
<td>PH990 Research and Dissertation (as needed)</td>
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†Required Epidemiology Subject Matter “S”elective (Choose two courses, 6 cr.)
- PH 768 Cancer Epidemiology (3)
- PH 769 Critical Perspectives in Nutritional Epi. and Food Systems (3)
- PH 762 Environmental Epidemiology (3)
- PH 868 Epidemiologic Links Between Infectious and Chronic Disease (3)
- PH 865 Critical Methodologies for Health Equity Research, 3 cr.

Analytic Methods Electives (Choose 2 courses, 6 cr.; other classes as approved)
- PH712 Probability and Statistical Inference (3)
- PH714 Statistical Genetics and Genetic Epidemiology (3)
- PH715 Applied Categorical Data Analysis (3)
- PH716 Applied Survival Analysis (3)
- PH717 Applied Longitudinal Data Analysis (3)
- PH718 Data Management and Visualization in R (3)
- PH776 Qualitative Approaches in Public Health Policy and Administration (3)
- SOC982 Advanced Quantitative Analysis (3)
- EDPSY823 Structural Equation Modelling (3)
- EDPSY832 Theory of Hierarchical Linear Modelling (3)
- PH729 Survey Research Methods in Public Health (3) -OR- SOC752 Fundamentals of Survey Methodology (3)
- GEOG525 Geographic Information Science (4)

Other Electives (Choose 1 course, 3 cr.; other classes as approved)
- PH 727 Program Planning and Implementation in Public Health (3)
- PH 728 Program Evaluation in Public Health (3)
- PH 774 Violence and Health: Interdisciplinary Theories and Interventions (3)
- PH 784 Social and Economic Policy as Health Policy (3)
- PH 808 Writing a Federal Grant in the Public Health Sciences (3)
- PH 820 Maternal and Child Health Foundations, Policy and Practice (3)
- PH 826 Principles of Community Intervention Research (3)
- PH 831 Community Engaged and Participatory Research and Practice (3)

NOTE: Students may apply previous graduate course work towards didactic PhD credits, contingent on assessment of course equivalencies, in accordance with UW-Milwaukee policies.

We encourage applicants to the PhD program in Epidemiology from diverse backgrounds with a clearly communicated interest in Epidemiology and in promoting health equity. Applicants should have an earned bachelor’s degree in any field with a cumulative undergraduate GPA of 3.0. At least one undergraduate mathematics or statistics course and one biological sciences course with a 3.0 (A=4.0) is preferred. A completed master’s degree in Epidemiology, public
health or the social sciences is also encouraged, but a master’s degree is not a prerequisite for admission. Graduate Record Examination (GRE) scores and letters of recommendation are required. Students will be asked to identify their primary research areas of interest and faculty with potential shared interests; faculty will be matched to serve as a career mentor and advisor.

Projected Time to Degree
The average time to degree completion for full-time students is anticipated to be 4.5 years beyond the bachelor’s degree (see Suggested Course Plan above). Average time to degree completion will be shorter for full-time students who previously earned a master’s degree, depending on previous coursework, (e.g. 3-4 years).

Program Review Process
The internal program review process for the PhD in Epidemiology will involve the annual collection of feedback from faculty and students regarding curriculum, advising, and job placement. Quantitative and qualitative data will be used to improve courses, assess whether students achieved program competencies, measure time to graduation, and provide input about processes. The Zilber School Epidemiology program area, Graduate Program Committee and PhD Coordinating Committee will ensure that a schedule of specific evaluation activities is maintained and that improvement actions are carried out in a timely manner. This review will be coordinated with campus and school accreditation cycles. Review of the Epidemiology PhD program will also be incorporated into the school’s overall evaluation plan, which is designed to provide data for specific measurable objectives and ensure quality improvement.

Institutional Review
The PhD Epidemiology program will be reviewed in accordance with UW-Milwaukee’s graduate program review process (Graduate Faculty Committee Doc. No. 951). The first full-scale Graduate School review will take place after five years. Zilber School faculty and staff will complete a self-study study of the Epidemiology PhD program in coordination with the Zilber School Graduate Program Committee, and external reviewers will prepare a site visit report. These materials will be presented to the UW-Milwaukee Graduate Faculty Committee for recommendations. The Zilber School will also provide requested assessment materials for the UW-Milwaukee reaccreditation by the Higher Learning Commission. These assessment materials include Epidemiology PhD qualifying exams, dissertation proposals, and dissertation defense presentations. The campus received a ten-year reaccreditation in 2015.

Accreditation
The Zilber School is currently in the final stages of becoming accredited by CEPH, the accrediting body for schools of public health nationally. Accreditation applies to the school itself rather than to individual programs within the school, although general requirements for PhD programs are specified below. The Zilber School submitted the Final Self-Study Report required by CEPH in mid-September 2016. The site visit is scheduled for October 2016, with the CEPH Council making a final decision in June 2017.

CEPH general requirements for PhD programs are the following. Each PhD program must have at least five dedicated faculty members; the Epidemiology Program Area met this requirement at the start of the 2016-2017 academic year. The Zilber School must engage in an ongoing self-study process to assess and document the extent to which each student has met the competencies outlined for the Epidemiology PhD. The Zilber School will also track graduation and job placement rates for the program, collected via graduation, alumni and employer surveys.
LETTERS OF SUPPORT
TABLE OF CONTENTS

Request for Authorization to Implement
A Doctor of Philosophy in Epidemiology
at the University of Wisconsin-Milwaukee

I. Kim Litwack, PhD, APNP, FAAN
Interim Dean and Associate Professor
College of Nursing
University of Wisconsin, Milwaukee

II. Ron Cisler, PhD, MS
Dean and Professor
College of Health Sciences
University of Wisconsin, Milwaukee

III. F. Javier Nieto, MD, PhD, MPH
Helfaer Professor of Public Health
Professor and Chair
Department of Population Health Sciences
University of Wisconsin, School of Medicine and Public Health

and-
Maureen Durkin, PhD, DrPH
Professor and Vice-Chair
Graduate Program Director
Department of Population Health Sciences
University of Wisconsin, School of Medicine and Public Health
September 26, 2016

Ellen Velie, MPH, PhD
Professor of Epidemiology
Joseph J. Zilber School of Public Health
University of Wisconsin-Milwaukee

Dear Dr. Velie

As Interim Dean of the College of Nursing, I support the request of the Zilber School of Public Health to implement a Doctor of Philosophy in Epidemiology. This degree program is complementary to other doctoral programs at UWM, and offers our doctoral students, and perhaps other graduate students (specifically Masters in Sustainable Peacebuilding), the potential for electives that support their substantive and research foci.

Sincerely,

Kim Litwack, PhD, APNP, FAAN
Interim Dean
September 29, 2016

Ellen Velie, MPH, PhD
Professor of Epidemiology
Joseph J. Zilber School of Public Health
University of Wisconsin-Milwaukee
Milwaukee, WI 53205

Dear Dr. Velie,

Thank you for sharing your Authorization to Implement (ATI) a PhD program in Epidemiology in the Zilber School of Public Health at the University of Wisconsin-Milwaukee, and for the opportunity to provide our support.

As Dean of the College of Health Sciences, I support the request of the Zilber School of Public Health to implement a Doctor of Philosophy in Epidemiology. This degree program is an essential offering in a successful school of public health and is complementary to other doctoral programs at UWM and within the Zilber School of Public Health. In addition, this program has the potential for our College of Health Sciences doctoral and other graduate students to take epidemiology electives important to expanding methodological approaches and applications of their research.

I wish you success in gaining approval and implementing your PhD program in Epidemiology.

Sincerely,

Ron A. Cisler, Ph.D., M.S.
Dean and Professor
23 September 2016

Ellen Velie, MPH, PhD
Professor of Epidemiology
Joseph J. Zilber School of Public Health
University of Wisconsin-Milwaukee
Milwaukee, WI 53205

Dear Dr. Velie,

Thank you for sharing your Authorization to Implement (ATI) a PhD program in Epidemiology in the Zilber School of Public Health at the University of Wisconsin-Milwaukee, and for the opportunity to provide our support.

We have reviewed your ATI, and as the only other UW System school offering a PhD in Epidemiology, we feel that the presence of two such programs will greatly enhance opportunities for collaborations between our two campuses and help meet the growing need for training in the design, implementation, and interpretation of epidemiologic research. With the expansion of public health and epidemiology education at both UW-Madison and UW-Milwaukee, we will be better prepared to meet the increasing public health needs of Wisconsin and beyond. In addition, the ability of our distinct programs to collaborate in curriculum planning, research, and other activities will strengthen both programs.

Our Department of Population Health Sciences Executive Committee discussed your plan to submit this ATI this morning, and we are pleased to inform you that the faculty enthusiastically supports your efforts and we look forward to establishing stronger collaborations between our two programs.

Sincerely,

F. Javier Nieto, MD, PhD, MPH
Helfaer Professor of Public Health
Professor and Chair
Department of Population Health Sciences
UW School of Medicine and Public Health

Maureen Durkin, PhD, DrPH
Professor and Vice-Chair
Graduate Programs Director
Department of Population Health Sciences
UW School of Medicine and Public Health