MASTER OF PUBLIC HEALTH IN THE FIELD OF GLOBAL HEALTH EPIDEMIOLOGY

*This program is not accepting students in the 2015-16 Academic Year*

Program Co-Directors H. Young, M. Magnus, L. Simonsen

Practicum Director L. Simonsen

Mission
The mission of the Global Health Epidemiology Program is to educate graduate students by developing the necessary methodological and quantitative skills to conduct research in an international setting and successfully improve the health and well-being of people around the world. While nurturing students’ capacity to think critically and creatively, we strive to deepen their commitment to improving the public’s health and to engaging in and promoting public service—qualities we believe are essential for future epidemiologists and public health practitioners.

Goals
The goals of the Global Health Epidemiology Program are to ensure that graduates:

- Identify determinants of health problems including sociocultural factors;
- Understand and adhere to high scientific standards for research;
- Understand and follow guidelines for ethical treatment of research participants;
- Communicate research findings to a lay audience;
- Assume leadership roles in designing and conducting epidemiologic and intervention research at both national and global levels; and
- Respect cultural diversity throughout all of the above.

COMPETENCIES

Program-Specific Competencies
The Global Health Epidemiology specialization prepares students for epidemiological research and evaluation in a variety of local, national, and international organizations. The curriculum prepares students to design and conduct studies, manage health data, and make leadership decisions in the context of international public health. The following competencies were developed in concert with professors of epidemiology and global health courses, epidemiology textbooks, conversations with prospective employers, and experience in the field.

Upon completion of the MPH in Global Health Epidemiology, students will demonstrate functional competence to:

- Apply the theories and principles of epidemiology, biostatistics, economics and social development to the identification, classification and elaboration of the determinants and distribution of disease and global health threats and opportunities at the community, national and international levels.
  
  Relevant courses:
  
  PUBH 6247 Design of Health Studies
  PUBH 6249 StatPackages/DataMgt&DataAnlys
  PUBH 6252 Advanced Epidemiology Methods
  PUBH 6400 Global Health Frameworks
  PUBH 6440 GH Econ & Finance

- Assess the functions, capacities, management and governance of governmental, international and non-state organizations in the translation of scientific and program evidence to inform public health policy making and strategy development.
  
  Relevant courses:
  
  PUBH 6400 Global Health Frameworks
  PUBH 6401 Comp Regional Determinants
  PUBH 6402 Washington Seminar

- Critically analyze global health trends and assess patterns of emerging diseases to postulate hypotheses and to differentiate determinants in order to evaluate the impact of health problems and prioritize approaches based on economic affordability and political feasibility.
  
  Relevant courses:
  
  PUBH 6247 Design of Health Studies
  PUBH 6249 StatPackages/DataMgt&DataAnlys
  PUBH 6252 Advanced Epidemiology Methods
  PUBH 6400 Global Health Frameworks
  PUBH 6401 Comp Regional Determinants
  PUBH 6440 GH Econ & Finance

- Apply underlying principles and methods including ethical issues involved in the design, planning, and conduct of epidemiologic studies including observational and experimental designs, screening programs, public health surveillance, and other epidemiologic designs in a global health setting.
  
  Relevant courses:
• Identify the appropriate data analysis methods, conduct data management and data analysis using a computerized software program, and interpret the results from epidemiological studies.

Relevant courses:
- PUBH 6249 StatPackages/DataMgt&DataAnlys
- PUBH 6252 Advanced Epidemiology Methods

• Successfully apply public health theory and experiential evidence in the development and management of project, program and institutional strategies capable of reducing health risks, addressing underlying vulnerabilities, and mitigating the impact disease.

Relevant courses:
- PUBH 6400 Global Health Frameworks
- PUBH 6401 Comp Regional Determinants

• Effectively synthesize data and relevant literature with economic and social arguments to formulate communication strategies in global health action in various professional, institutional, political and cultural settings as well as facilitate the distribution of scientific findings through manuscripts and scientific presentations.

Relevant courses:
- PUBH 6247 Design of Health Studies
- PUBH 6249 StatPackages/DataMgt&DataAnlys
- PUBH 6252 Advanced Epidemiology Methods
- PUBH 6400 Global Health Frameworks
- PUBH 6401 Comp Regional Determinants

• Evaluate the benefits, costs and effectiveness of global health project, program and policy approaches and interventions though the appropriate choice and application of qualitative and quantitative survey and analysis methods.

Relevant courses:
- PUBH 6247 Design of Health Studies
- PUBH 6400 Global Health Frameworks

• Demonstrate their understanding of the fundamental concepts related to the theory of the consumer and production decisions by health care organizations; be able to critically evaluate research findings related to various healthcare markets; and use economic analysis and statistical tools for evaluating problems faced by health care organizations.

Relevant course:
- PUBH 6440 GH Econ & Finance

• Critically assess issues in at least one of the following specialty areas in global health epidemiology:
  - Clinical epidemiology such as decision analysis, cost-effectiveness to clinical and public health problems.
  - Major topics in infectious disease epidemiology
  - Methods and issues of cancer epidemiology
  - Methods and issues of surveillance systems in public health.
  - Qualitative research methods
  - Program design and implementation
  - Major topics in food, water and vector borne diseases and control
  - Advanced quantitative methods

REQUIREMENTS

Course Requirements
Students may not be admitted directly into the Global Health Epidemiology program. Students in either the Epidemiology program or the Global Health program may apply to the Global Health Epidemiology program after they have completed PUBH 6002 Biostatistical Applic for PubH, PUBH 6003 Prin & Practice/Epidemiology, and PUBH 6400 Global Health Frameworks (usually after their first semester). Successful applicants are expected to have earned a minimum of A- in each of these three courses. Students who are interested in this program and intend to complete the MPH in two years will need to register for the above mentioned three courses in their first semester. Students not admitted into the Global Health Epidemiology program will continue in their original program.

All GW School of Public Health and Health Services (SPH) MPH students who are admitted into the MPH Global Health Epidemiology Program enroll in Core Courses (15 credits), Epidemiology Program-Specific Required Courses (9 credits), Global Health Program-Specific Required Courses (9 credits) and Concentration electives (8 credits). The total 45 credit degree program also includes a Practicum (2 credits) and a Culminating Experience (2 credits) where students apply their didactic education in a real world setting.
Program Requirements

**Required core courses:**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PUBH 6001</td>
<td>Biological Concepts/Public Health</td>
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<tr>
<td>PUBH 6002</td>
<td>Biostatistical Applications for Public Health</td>
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<tr>
<td>PUBH 6003</td>
<td>Principles and Practice of Epidemiology</td>
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<tr>
<td>PUBH 6004</td>
<td>Environmental and Occupational Health in a Sustainable World</td>
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<tr>
<td>PUBH 6006</td>
<td>Management and Policy Approaches for Public Health</td>
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<td>PUBH 6007</td>
<td>Social and Behavioral Approaches for Public Health</td>
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**Global Health required program-specific courses:**

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<tbody>
<tr>
<td>PUBH 6400</td>
<td>Global Health Frameworks</td>
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<tr>
<td>PUBH 6401</td>
<td>Comparative Regional Determinants</td>
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<tr>
<td>PUBH 6402</td>
<td>Washington Seminar</td>
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<tr>
<td>PUBH 6440</td>
<td>GH Econ &amp; Finance</td>
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**Epidemiology/Biostatistics required program-specific courses:**

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<tbody>
<tr>
<td>PUBH 6247</td>
<td>Design of Health Studies</td>
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<tr>
<td>PUBH 6249</td>
<td>Statistical Packages/Data Management/Data Analysis</td>
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<tr>
<td>PUBH 6252</td>
<td>Advanced Epidemiology Methods</td>
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**Program elective courses:**

- 8 credits from the following global health and epidemiology/biostatistics courses (other courses may be used with permission of advisor):
  - Department of Epidemiology and Biostatistics:
    - PUBH 6242 | Clinical Epidemiology and Decision Analysis
    - PUBH 6244 | Cancer Epidemiology
    - PUBH 6245 | Infectious Disease Epidemiology
    - PUBH 6250 | Epidemiology of HIV/AIDS
    - PUBH 6253 | Issues in HIV Care and Treatment
    - PUBH 6255 | Organ Responses to HIV/Epidemic
    - PUBH 6259 | Epidemic Surveillance/Public Health
    - PUBH 6260 | Advanced Data Analysis-Public Health
    - PUBH 6262 | Intro-Geo Information Systems
    - PUBH 6263 | Advanced GIS
  - Department of Global Health:
    - PUBH 6530 | Qualitative Methods/Health Promotion
    - PUBH 6435 | Global Health Program Development and Implementation
    - PUBH 6442 | Comparative Global Health Systems
    - PUBH 6480 | Public Health in Complex Emergencies
    - PUBH 6481 | Global Mental Health
    - PUBH 6482 | International Food and Nutrition
    - PUBH 6484 | Preventive and Control of Vector-Borne Diseases
    - PUBH 6485 | Preventive and Control of Water and Sanitation Diseases
    - PUBH 6499 | Topics in Global Health (Advanced Quantitative Methods in Global Health)

**Practicum and culminating experience:**

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<tr>
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<tr>
<td>PUBH 6014</td>
<td>Practicum</td>
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<tr>
<td>PUBH 6015</td>
<td>Culminating Experience</td>
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**Graduation Requirements**

1. Graduate credit requirement: 45 graduate credits
2. Course requirements: Successful completion of core and program-specific courses
3. Grade point requirement: 3.0 (B average) overall grade point average
4. Time limit requirement: The degree must be completed within four years.
5. Transfer credit policy: Up to 12 graduate credits that have not been applied to a previous graduate degree may be transferred to the Master of Public Health program. Up to 18 credits may be transferred to the Master of Public Health from the SPH graduate certificate. Credits must have been earned from an accredited institution in the last 3 years with a grade point of 3.0 or better.