

## PhD in PUBLIC HEALTH SCIENCES

Academic Year 2014-2015

Environmental Health Sciences

### Program Profile

The PhD program in Public Health Sciences prepares professionals for research, teaching, and service with the overall objective of improving the health of populations. To meet this objective, all students in the program pursue excellence in conducting research and disseminating knowledge. The primary focus is on research that advances knowledge and facilitates discovery regarding etiology, interventions, and policies that promote health at the individual, population, societal, and/or global levels. The concentration of environmental health sciences will prepare students to research, teach and apply knowledge on the interrelationships between the environment and human health and the regional, national and global significance. Students will be equipped to apply their research skills and knowledge to recognize, evaluate and prevent exposures that may adversely impact human health and environmental quality, whether in the natural or human-made environment. Upon completion of the PhD in Public Health Sciences degree with a concentration in Environmental Health Sciences, the student will have demonstrated proficiency in the following competencies:

#### PhD Core Competencies:

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| <ul style="list-style-type: none"> <li>• <b>Research Theories:</b> synthesize historical, contemporary, and emerging theories and paradigms of significance to public health.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• <b>Critical Analysis:</b> Critically evaluate the strengths and weaknesses of existing research evidence and identify significant gaps in knowledge.</li> </ul>                            |
| <ul style="list-style-type: none"> <li>• <b>Research Methodology:</b> Comprehend, design and apply relevant and advanced research methods based on rigorous standards of evidence.</li> </ul>                                       |
| <ul style="list-style-type: none"> <li>• <b>Scientific Communications:</b> Develop professional skills in scientific and grant writing, oral communication, and teaching.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• <b>Ethics:</b> Uphold the highest ethical standards in all professional endeavors, including the design and implementation of research and the participation of human subjects.</li> </ul> |
| <ul style="list-style-type: none"> <li>• <b>Discovery and Translational Theory:</b> Conduct investigative research, including areas that facilitate the translation and application of discovery to practice.</li> </ul>            |

**Concentration Competencies:**

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| <ul style="list-style-type: none"><li>• Identify environmental agents and their sources, and discuss and describe the implications of sources, transport mechanisms, toxico-dynamics, genetics, physiologic, psychological, social and cultural factors that influence exposure and/or health outcomes.</li></ul>                       |
| <ul style="list-style-type: none"><li>• Apply risk assessment and management strategies to environmental and occupational hazards.</li></ul>  |
| <ul style="list-style-type: none"><li>• Employ the paradigms of environmental and occupational health (nature and sources of hazards; exposure, risk assessment and outcomes measures; susceptibility, culture, behavior and disparities) to assess and design studies of environmental and occupational health implications.</li></ul> |

The PhD program requires a minimum of 90 semester credit hours (SCH) post-baccalaureate degree and is offered on a full time or part-time basis. Any graduate credits post-baccalaureate, including master's degree courses may be applied to coursework outlined within the PhD degree plan. A student may apply up to 42 SCH of previously taken graduate level courses toward the completion of the Ph.D. coursework (Advanced Standing). All such courses are subject to approval by the Academic Advisor and the PhD Program Committee.

# Coursework

Course	Credit Hours	Course was taken...
<b>PhD Core</b>		
<b>BACH 5300</b> Theoretical Foundations of Individual and Community Health	3	
<b>BIOS 5300</b> Principles of Biostatistics	3	
<b>EPID 5300</b> Principles of Epidemiology	3	
<b>HMAP 5300</b> Introduction to Health Management & Policy	3	
<b>EOHS 5300</b> Environmental Determinants of Health	3	
<b>BIOS 5310</b> Intermediate Biostatistics	3	
<b>BIOS 6300</b> Advanced Methods in Biostatistics	3	
<b>HMAP 6360</b> Ethical Issues in Public Health	3	
<b>PHED 6118</b> Methods for Public Health Studies II	1	
<b>PHED 6220</b> Scientific and Grant Writing	2	
<b>PHED 6321</b> Pedagogy in Public Health	3	
<b>PHED 6314</b> Methods for Public Health Studies I	3	
<b>Required</b>		
<b>EOHS 5331</b> Environmental & Occupational Sampling Analysis Methods	3	
<b>EOHS 5350</b> Environmental & Occupational Toxicology	3	
<b>BIOS 6314</b> Categorical Data Analysis	3	
<b>EOHS 6340</b> Human Health Risk Analysis and Exposure Assessment	3	
<b>EPID 5310</b> Intermediate Epidemiology	3	
<b>EOHS 6391</b> Advanced Topics in Environmental and Occupational Health Sciences	3	
<b>EOHS 6300</b> Environmental Determinants of Health 2	3	

<b>Culminating Experience</b>		
<b>EOHS 6000</b> PhD Comprehensive Examination	0	
<b>EOHS 6395</b> Doctoral Dissertation	12	
PhD Professional and Academic Development	0	
<b>Electives*</b>		
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2.		
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8.		

\*EOHS Electives-24 semester credit hours with no more than 15 semester credit hours at the 5000 level with 9 methods based semester credit hours. Advisor approval must be provided for all electives.

