

## Doctor of Philosophy in Public Health Sciences Epidemiology 2012-2013 Academic Year

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 in epidemiology prepares students contemplating a career as scientists employed in academia, research institutions, or in research units within industry or other agencies and organizations. The program is comprehensive, with a strong emphasis on epidemiologic methodology, theory, and practice. This broad and rigorous training will fully equip students with the skills they need to be engaged in conducting cutting-edge epidemiologic research within the many areas of public health. Upon completion of the PhD in Public Health Sciences degree with a concentration in Epidemiology, the student will have demonstrated proficiency in the following competencies:

- Describe the theory underlying epidemiological methods,
- Comprehend and apply epidemiologic methods to solve a variety of public health problems, and
- Conduct primarily etiologic or other analytic and descriptive research studies, through appropriate formulation of a health problem, and the collection, assimilation, analysis, interpretation, and dissemination of data on human populations and the physical, chemical and biologic environment.

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.

**Concentration-specific courses** \* will vary depending upon already-completed coursework of the applicant.

<b>Public Health Sciences Core Courses</b>	<b>33 SCH</b>
<b>Concentration Core &amp; Elective Courses *</b>	<b>45 SCH</b>
<b>Dissertation</b>	<b><u>12 SCH</u></b>
<b>Total</b>	<b>90 SCH</b>

**Public Health Sciences Core Courses (33 SCH)**

BACH	5300	Theoretical Foundations of Individual & Community Health	3 SCH
BIOS	5300	Biostatistics for Public Health I	3 SCH
EOHS	5300	Environmental Health	3 SCH
EPID	5300	Principles of Epidemiology	3 SCH
HMAP	5300	Introduction to Health Management & Policy	3 SCH
BIOS	5310	Biostatistics for Public Health II	3 SCH
BIOS	6300	Applied Statistical Methods for Data Analysis	3 SCH
HMAP	6360	Ethical Issues in Public Health	3 SCH
PHED	6118	Seminar/ Grand Rounds in Public Health Research	1 SCH
PHED	6220	Scientific and Grant Writing	2 SCH
PHED	6321	Pedagogy in Public Health	3 SCH
PHED	6310	Public Health Research Methods	3 SCH

**Concentration Core Courses (39 SCH) \***

BIOS	6314	Applied Categorical Data Analysis	3 SCH
BIOS	6318	Clinical Trials & Survival Analysis	3 SCH
EOHS	5342	Biomarkers in Environmental Epidemiology	3 SCH
EPID	5310	Intermediate Epidemiology	3 SCH
EPID	5312	Survey Methodology	3 SCH
EPID	5313	SAS & Data Management	3 SCH
EPID	5314	Applied Data Analysis in Epidemiology	3 SCH
EPID	5318	Chronic Disease Epidemiology	3 SCH
EPID	5320	Infectious Disease Epidemiology	3 SCH
EPID	5391	Topics in Epidemiology: Secondary Data Analysis	3 SCH
EPID	6310	Advanced Methods in Epidemiology I	3 SCH
EPID	6312	Advanced Methods in Epidemiology II	3 SCH
EPID	6316	Molecular Epidemiology	3 SCH

**Concentration Electives (6 SCH) \***

*(no more than 3 SCH at the 5000 level)*

BIOS	6312	Applied Methods of Survey Sampling	3 SCH
EOHS	5340	Exposure & Risk Assessment	3 SCH
EOHS	5350	Environmental & Occupational Toxicology	3 SCH
EOHS	6324	Genomics & Public Health	3 SCH
EOHS	6348	Spatiotemporal Environmental Health Modeling	3 SCH
EPID	6314	Experimental Methods in Epidemiology	3 SCH
EPID	6318	Epidemiologic Surveillance	3 SCH
EPID	6320	Social Epidemiology	3 SCH
EPID	6322	Nutritional Epidemiology	3 SCH
EPID	6324	Cancer Epidemiology	3 SCH
EPID	6326	Occupational Epidemiology	3 SCH
EPID	6399	Doctoral Independent Study in Epidemiology	1-3 SCH
PHED	6391	Advanced Topics for Public Health	1-3 SCH

**Dissertation – 12 SCH**

PHED	6395	Doctoral Dissertation (3 SCH x 4)	12 SCH
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**\* Course substitution may be made with the approval of Academic Advisor.**