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Doctor of Philosophy in Public Health Sciences
Environmental Health Sciences
2011-2012 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 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:

- Identify environmental agents and their sources, and discuss and describe the implications of sources, transport mechanisms, toxicodynamics, genetics, physiologic, psychological, social and cultural factors that influence exposure and/or health outcomes.
- Apply risk assessment and management strategies to environmental and occupational hazards.
- 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.

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.

Public Health Sciences Core Courses	**33 SCH**
Concentration Core & Elective Courses *	**45 SCH**
Dissertation	**12 SCH**
Total	**90 SCH**

Public Health Sciences Core Courses (33 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
SABS	5300	Theoretical Foundations of Individual & Community Health	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 (21 SCH) *

BIOS	6314	Applied Categorical Data Analysis	3 SCH
EOHS	5331	Environmental and Occupational Sampling & Analysis Methods	3 SCH
EOHS	5340	Exposure and Risk Assessment	3 SCH
EOHS	5350	Environmental and Occupational Toxicology	3 SCH
EOHS	6300	Environmental Health Determinants	3 SCH
EOHS	6391	Advanced Topics in Environmental & Occupational Health Sciences	3 SCH
EPID	6300	Intermediate Epidemiology for Public Health Practice	3 SCH

Concentration Electives (24 SCH) *

(no more than 15 SCH at the 5000 level)

Choose three courses (9 SCH) from the following methods courses

BIOS	5312	Regression Analysis	3 SCH
BIOS	5316	Nonparametric Statistical Methods	3 SCH
BIOS	5320	Analysis of Variance (ANOVA)	3 SCH
BIOS	5324	Data Management	3 SCH
BIOS	6312	Applied Methods of Survey Sampling	3 SCH
BIOS	6318	Clinical Trials and Survival Analysis	3 SCH
EOHS	5342	Biomarkers and Environmental Epidemiology	3 SCH
EOHS	6348	Spatiotemporal Environmental Health Modeling	3 SCH
EPID	6310	Advanced Methods in Epidemiology I	3 SCH
EPID	6326	Occupational Epidemiology	3 SCH

Choose five courses (15 SCH) from the following courses

BIOS	5314	Introduction to Statistical Packages	3 SCH
EOHS	5310	Evaluation & Control of Biologic Agents and Infectious Diseases	3 SCH
EOHS	5312	Food Quality and Safety	3 SCH
EOHS	5320	Texas-Mexico Border Health Issues	3 SCH
EOHS	5322	Air Pollution and Health	3 SCH
EOHS	5324	Water and Public Health: Global to Regional Perspectives	3 SCH
EOHS	5330	Recognition, Evaluation and Control of Environmental & Occupational Health Hazards	3 SCH
EOHS	5360	Environmental Data Analysis	3 SCH
EOHS	5362	GIS and Health	3 SCH
EOHS	5370	Policy, Science and Decisions	3 SCH
EOHS	6324	Genomics and Public Health	3 SCH
EOHS	6348	Spatiotemporal Environmental Health Modeling	3 SCH
EOHS	6399	Doctoral Independent Study in Environmental & Occupational Health Sciences	3 SCH
PHED	6391	Advanced Topics for Public Health	1-3 SCH
SABS	6300	Social & Behavior Theories and Health Applications	3 SCH

Dissertation – 12 SCH

PHED	6395	Doctoral Dissertation (3 SCH x 4)	12 SCH

*** Course substitution may be made with the approval of Academic Advisor.**