

# ENVIRONMENTAL HEALTH, OCCUPATIONAL HEALTH & TOXICOLOGY (PHD)

## Curriculum

### Graduate Committee

Dr. JoEllyn McMillan (Chair & Graduate Program Director), Dr. Kristina Kintziger, Dr. Terry Stentz (UNL), Dr. Aaron Yoder, Dr. Eric Carnes, and student representative

The PhD program in Environmental Health, Occupational Health and Toxicology provides students with the knowledge base, field and laboratory skills, and problem-solving abilities to become independent, innovative professionals using state-of-the-art approaches to address scientific problems in the fields of environmental health, ecological and climate health, occupational health and safety, and toxicology. The program offers a core background in environmental law, policy, data analysis, and exposure assessment and scientific writing for environmentally related funding sources. The curriculum offers a flexible program of electives to meet the research interests of our students.

PhD students in Environmental Health, Occupational Health & Toxicology must complete a set of core course requirements in environmental law, policy, data analysis, and exposure assessment and scientific writing for environmentally related funding sources as detailed in the requirements below. The student, in consultation with their advisor and advisory committee will choose to form a wide selection of electives to tailor their program of study to meet the student's specific research interests.

Code	Title	Credit Hours
<b>Environmental Health, Occupational Health, &amp; Toxicology</b>		
<b>Core Courses</b>		
GRAD 800	RESPONSIBLE CONDUCT IN RESEARCH TRAINING *	0
ENV 900	ADVANCED EXPOSURE ASSESSMENT *	3
ENV 901	ENVIRONMENTAL, AGRICULTURAL AND OCCUPATIONAL HEALTH DATA: METHODS AND APPLICATIONS *	3
ENV 904	ENVIRONMENTAL, AGRICULTURAL, AND OCCUPATIONAL POLICY *	3
ENV 906	ENVIRONMENTAL, AGRICULTURAL, AND OCCUPATIONAL HEALTH FUNDING STRATEGIES: FROM CONCEPT TO PROPOSAL *	3
ENV 907	LEGAL FRAMEWORKS: ENVIRONMENTAL, AGRICULTURAL, AND OCCUPATIONAL HEALTH *	3
ENV 970	SEMINAR *	1
Seminar: 4 cr required in 1 cr increments		4
<b>Electives</b>		<b>27</b>
Up to 9 cr of ENV 996 Directed Readings and Research Are Allowed		
ENV 996	DIRECTED READINGS AND RESEARCH	1-9
<b>College of Public Health Required Course</b>		

HPRO 830	FOUNDATIONS OF PUBLIC HEALTH (Foundations of Public Health is required for students who have not completed a master's degree from a CEPH-accredited unit. Other exemptions based on previous coursework may be considered by the COPH Assistant Dean for Academic Affairs on a case-by-case basis. *)	3
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<b>*indicates course must be completed prior to Comprehensive Exam</b>		
Code	Title	Credit Hours
ENV 999	DOCTORAL DISSERTATION	1-9

**Students who do NOT have a Master's degree (MPH, M.S. with emphasis in Industrial Hygiene or Occupational Safety & Health, or equivalent) will be required to take the following additional courses:**

HPRO 830	FOUNDATIONS OF PUBLIC HEALTH	3
BIOS 806	BIOSTATISTICS	3
EPI 820	EPIDEMIOLOGY IN PUBLIC HEALTH	3
ENV 800	ELEMENTS OF INDUSTRIAL SAFETY FOR HEALTH SCIENCES	3
ENV 814	FUNDAMENTALS OF INDUSTRIAL HYGIENE	3
ENV 816	ENVIRONMENTAL EXPOSURE ASSESSMENT	3
ENV 888	PRINCIPLES OF TOXICOLOGY	3
ENV 892	PUBLIC HEALTH ENVIRONMENT & SOCIETY	3

## PhD Competencies in Environmental Health, Occupational Health & Toxicology

Name	Title
EHOHTPHD1	Formulate hypotheses and design experiments to advance the knowledge surrounding environmental and occupational health issues.
EHOHTPHD2	Prepare and communicate qualitative and quantitative information on environmental and occupational health topics to academic, professional, and public audiences.
EHOHTPHD3	Promote environmental and occupational health awareness, outcomes, laws, and policies by fostering diverse stakeholder collaboration.
EHOHTPHD4	Design and evaluate environmental and occupational health strategies, interventions, and policies to reduce injuries and illnesses.
EHOHTPHD5	Utilize experimental design and risk assessment to evaluate the relationship between exposures and adverse health responses.