OCCUPATIONAL AND ENVIRONMENTAL HEALTH, PH.D.

Overview

The Department of Occupational and Environmental Health strives to unite interdisciplinary training and research for persons grounded in natural, physical, and health sciences. This facilitates understanding of human responses to the environment and environmental responses to the activities of humans. Diversified graduate study, field training, and basic and applied research accommodate students from a wide range of academic and occupational backgrounds. The Master of Science area of focus is a combined Industrial Hygiene/Environmental Health Sciences track accredited by the Applied and Natural Science Accreditation Commission of ABET, **http://www.abet.org (http://www.abet.org/)**, under the General Criteria and the Industrial Hygiene Program Criteria.

Career Opportunities

Occupational and Environmental Health graduates may be employed in private industry (especially in the energy sector); insurance companies that insure industry; city and state health departments; state departments of labor and of environmental quality; federal government agencies including the Department of Labor (Occupational Safety and Health Administration and Mine Safety and Health Administration), Department of Health and Human Services (the National Institute for Occupational Safety and Health), the Department of Energy (e.g. the National Laboratories), and the US Environmental Protection Agency, to name a few; the uniformed services (Navy, Army, Air Force, Public Health Service, and Coast Guard) both as civilian employees and uniformed officers; consulting companies; law firms; health and safety equipment manufacturers and marketers; healthcare facilities and organizations; and universities.

It is the student's responsibility to ensure they are enrolled in the prescribed courses and to pay tuition and fees at the time designated by the Bursar's Office. Details regarding tuition/fee charges and collection are available from the Bursar's Office.

Admission Requirements

To be admitted to the PhD program, the candidate must hold a Master's degree from an accredited institution in a related field and display a clear research orientation and firm knowledge of research techniques. The Master's degree must be from an institution which has English as its primary language of instruction or the candidate must have scored a minimum of 90 (120 scale) on the TOEFL. The applicant must be accepted by the Department and be admitted into the doctoral program by the Graduate Dean. Applicants are also required to take the Graduate Record Exam (GRE).

Acceptance to the program will be determined based upon the following criteria:

- Admission to the OEH PhD program is based on the student's GPA, GRE scores, quality of reference letters, strength of background (coursework, work experience), available space in the program, ability of OEH faculty members to provide mentorship in the planned research area, and the capacity to provide needed resources for research. The applicant must have a minimum overall GPA of 3.25 (4.0 scale) based on all graduate work attempted.
- The applicant's statement of career goals must be compatible with Occupational and Environmental Health and must demonstrate an understanding of the central role of the dissertation research experience in the Doctor of Philosophy degree. Furthermore, the statement of career goals must include a description of the applicant's intended research topic, including a rationale for the proposed work and a self-assessment of how the applicant's prior educational and/or work background has prepared the applicant to approach the proposed research.
- The applicant must provide a minimum of three letters of recommendation, all of which must be from respondents who can offer first-hand evaluations of the applicant's background and professional interests. At least one of the references must address the applicant's academic capabilities in accomplishing a doctoral program.
- The applicant's acceptance is contingent upon personal interviews by the Departmental Faculty, and the availability of an academic advisor in the applicant's area of research interest.
- The applicant must have demonstrated potential for performing individual research. This requirement normally can be satisfied by the Master's thesis or by first authorship on a peer-reviewed scientific publication.
- In addition to the course work prerequisites required for MS applicants, PhD applicants must also have completed course work in differential and integral calculus before being admitted to the program.

Doctor of Philosophy Degree Requirements

The Doctor of Philosophy in Occupational and Environmental Health (PhD OEH) degree is an advanced, research-oriented degree program requiring in-depth study of and research in a specialty area within the broad field of occupational and environmental health.

General requirements for admission and completion of the degree are consistent with those applicable to all PhD programs as described in the Graduate Bulletin. Minimum requirements are 90 semester hours, including approved transfer credit but excluding any credit for research tools. Minimum of 20 hours but no more than 25 hours of dissertation research to be applied to the degree.

Code	Title	Hours
Core Competencies (20 hours)		
OEH 6103	Research Methods In Occupational And Environmental Health	3
OEH 6793	Aerosol Science	3
OEH 6473	Risk Assessment	3
OEH 6683	Applied Modeling in Occupational & Environmental Health	3
BSE 6192	Grant Writing Skills in Epidemiology	2
BSE 5013	Application of Microcomputers to Data Analysis	3
BSE 5173	Biostatistics Methods II	3

Selective BSE Electives (9 hours)		
Biostatistics		
BSE 5643	Regression Analysis	
BSE 5663	Analysis of Frequency Data	
BSE 5653	Nonparametric Methods	
Epidemiology		
BSE 5193	Intermediate Epidemiologic Methods	
BSE 5283	GIS in Health	
BSE 5363	Epidemiology and Prevention of Chronic Diseases	
Required Courses		
HAP 7913	Professional Communication Skills	3
or OEH 5973	Communication and Ethics in Occupational & Environmental Health	
BSE 5111	Scientific Integrity in Research	1-2
or BMSC 5001	Integrity in Scientific Research	
or BMSC 6202	Preparing Future Faculty - Instructional Methods	
BMSC 6300	PFF - Supervised Teaching Experience	1-3
or OEH 6200	Imparting Knowledge in Occupational & Environmental Health	
Dissertation		
OEH 6980	Research For Doctor's Dissertation	1-16
Electives (as needed)		

Note: Student's advisory committee sets the remainder of any needed requirements to meet the 90 hours required for the degree.

Prerequisites

- Bachelor's degree from an accredited institution.
- Grade point average of 3.0 or above in the last 60 hours.
- A minimum of 36 semester hours of undergraduate and/or graduate-level courses in basic and applied sciences, mathematics, and engineering/technology with at least 9 of these credit hours at the upper-level:
  - Chemistry – including Organic Chemistry, Biology, Physiology, Biochemistry, or other appropriate life science
  - Physics
  - College Algebra or higher
  - Statistics
  - Nutrition
  - Exercise Science
  - Environmental Health
  - Computer Science
  - Geographic Information Systems
  - Safety Science
- A minimum of 8 hours in communication is required: English, Speech, Journalism, Media, Composition, Technical Writing, Foreign Languages, and Literature.
- Proof of language proficiency for international applicants: TOEFL score of 88 or above for most programs.

Program Objectives

The mission of the Department of Occupational and Environmental Health is to understand and solve challenges to occupational and environmental health through innovative education, research, and service. We apply physical science, social science, and translational science to anticipate, assess, and mitigate occupational and environmental hazards that may endanger human health. We prepare practitioners and researchers for careers creating healthier, safer workplaces and protecting the environment.

The goal of the PhD degree in OEH is to prepare graduates to impart and/or add to knowledge in occupational health through careers in academia or research organizations.