OCCUPATIONAL & ENVIRONMENTAL HEALTH (OEH)

OEH 5013. Environmental Health. 3 Credit Hours.
The effects of environment on health. Consideration is given to urban water supply and wastewater disposal, air quality control, solid and hazardous wastes, and sanitation.
Course Type: Lecture

OEH 5023. Public Health Biology and Sanitation. 3 Credit Hours.
Prerequisites: OEH 5013 This course will provide a basic understanding of the biology of organisms (mostly microorganisms) that are important in public health, the sources of organisms in the environment, and the protective measures that can be used to control exposures from a technical and management standpoint.
Course Type: Lecture

OEH 5103. Occupational and Environmental Sampling Strategies. 3 Credit Hours.
Prerequisites: BSE 5163, or equivalent introductory statistics/ biostatistics course. This course is designed to introduce the student to critical concepts in designing occupational and environmental health sampling strategies, and the associated statistical procedures for analyzing environmental and occupational data with an emphasis on interpretation.
Course Type: Lecture

OEH 5213. Principles of Environmental Health and Safety Management. 3 Credit Hours.
Prerequisites: OEH 5013 Designed to introduce students to the principles and practices of environmental health and safety management. Emphasis is on the industrial, municipal, state, and federal system.
Course Type: Lecture

OEH 5262. Occupational and Environmental Law. 2 Credit Hours.
An overview of occupational and environmental health law focusing on RCRA, SDWA, OSHA, TSCA, NEPA, and other critical legislation and regulations guiding occupational and environmental health efforts.
Course Type: Lecture

OEH 5553. Occupational and Environmental Toxicology. 3 Credit Hours.
Prerequisites: OEH 5013 or permission. The course introduces the fundamentals of toxicology and applications in both general environments and workplaces. Health risk assessment, toxicokinetics, toxicodynamics, biotransformation, carcinogenesis, and systemic toxicity are covered. The course focuses on understanding health effects of exposure to common toxicants that students will encounter as industrial hygienists or environmental health professionals. (Spring)
Course Type: Lecture

OEH 5702. Principles of Safety. 2 Credit Hours.
Prerequisites: Permission Basic principles of safety management and injury prevention are presented, with emphasis on programs and practices applied to major issues in occupational safety. Essential elements of ergonomic performance and basic principles of safety science are introduced. The ergonomic and safety evaluation of the work place, risk reduction through management, engineering and behavior modification are discussed.
Course Type: Lecture

OEH 5723. Fundamentals of Occupational and Environmental Health Sciences. 3 Credit Hours.
Prerequisites: None This course is an introduction to fundamental concepts of physical science applied to qualitative and quantitative examination of occupational/environmental problems impacting human health. This course will provide the students with an understanding of how to apply theoretical constructs to solve problems in the occupational/environmental health arena.
Course Type: Lecture

OEH 5734. Noise and Radiation Hazards. 4 Credit Hours.
Prerequisites: College-level physics and OEH 5723. Permission of instructor may be substituted for OEH 5723. Students will acquire a basic understanding of the nature and properties of noise, ionizing radiation, and nonionizing radiation; the interactions of these forms of energy with matter; the implications of these properties and interactions for health effects, dose assessment, and control; and guidelines for radiation protection and hearing conservation programs.
Course Type: Lecture

OEH 5742. Measurements in Occupational and Environmental Health. 2 Credit Hours.
Prerequisites: Complete the laboratory safety training module through OUHSC web page, OEH 5723, and recommended enrollment in OEH or concurrent This course provides hands-on experience using tools most commonly encountered in OEH field practice or needed during M.S. research. Most sessions are conducted in-lab, but several occur in-field. Techniques covered include equipment calibration, sample collection, laboratory analysis, chain-of-custody, and use of direct reading instrumentation.
Course Type: Laboratory

OEH 5752. Occupational Hazards Control. 2 Credit Hours.
Prerequisites: OEH 5723 or instructor permission The course will introduce the fundamental principles of ventilation and other engineering controls for mostly gas/vapor and aerosols, but also heat stress and noise. The course will deliver in-depth knowledge of selecting, designing, operating, and diagnosing general, single-, and multi-branch ventilation systems from aspects of engineering economics, and strategies.
Course Type: Lecture

OEH 5793. Norman Talk-Back TV. 3 Credit Hours.
Course Type: Lecture
This course is facilitated by the University of Oklahoma Norman Campus. For more information, please visit the OU Course Catalog (https://ou-public.courseleaf.com/courses/).

OEH 5801. Basic Ergonomics. 1 Credit Hour.
Prerequisites: None This course is designed to introduce students to the basic principles of ergonomics, vibration, and thermal stress. On completion of this course, students should be able to analyze jobs for ergonomic risk factors and communicate their findings to professional peers and lay people.
Course Type: Lecture

OEH 5940. Field Practice. 1-2 Credit Hours.
Prerequisites: Students should have completed approximately 1/2 of their degree and have completed OEH 5723, and OEH 5742 May be repeated; maximum credit 6 hours. Field Practice is designed for the student to gain practical experience in industrial hygiene and/or environmental health through supervised OEH practice in approved professional workplaces. Through this work experience, students will integrate and apply concepts from the OEH curriculum.
Course Type: Practicum

OEH 5960. Directed Readings. 1-4 Credit Hours.
Prerequisites: None. May be repeated; maximum credit 4 hours. Designed for each student with an extensive directed reading in a specific area of the student's interest and/or background.
Course Type: Independent Study

OEH 5973. Communication and Ethics in Occupational & Environmental Health. 3 Credit Hours.
Prerequisites: OEH 5013, prior or concurrent enrollment in HPS 5213, or permission. Students will develop skills in written and oral technical communication and learn basic principles of risk communication as well as conventions of scientific and business writing. Ethical principles of communication, professional practice, and responsible conduct of research will be discussed.
Course Type: Lecture

OEH 5980. Research For Master's Thesis. 1-4 Credit Hours.
May be repeated; maximum credit 4 hours.
Course Type: Independent Study

OEH 5990. Special Studies. 1-4 Credit Hours.
Prerequisites: None. May be repeated with change of subject matter, maximum 6 credit hours. Topics of a special nature or of unusual interest to the student. Deals with a specific topic, area or problem in depth which is not adequately covered in the current curriculum as judged by the training needs of the student.
Course Type: Independent Study

OEH 6103. Research Methods In Occupational And Environmental Health. 3 Credit Hours.
Prerequisites: Permission of the course director. This course includes instruction in scientific methods of investigating occupational and environmental health problems; evaluating research methodologies; and developing research designs. Special emphasis will be given to quantitative research tools and critical analysis of published literature.
Course Type: Independent Study

OEH 6200. Imparting Knowledge in Occupational & Environmental Health. 1-2 Credit Hours.
Prerequisites: Completion of at least one year of doctoral level study in OEH. This course provides independent study in pedagogy and a mentored teaching experience in the field of occupational and environmental health. (F, Sp, Su II, III, IV)
Course Type: Independent Study

OEH 6252. Risk Communication. 2 Credit Hours.
Prerequisites: OEH 5213, OEH 5723, & OEH 5013 or Permission. Designed to acquaint public health students with risk communication concepts, strategies and activities during non-emergency and emergency situations by investigating the structure, methodology, and application of theoretical principles of communication with a focus on the occupational and environmental health arena.
Course Type: Lecture

OEH 6473. Risk Assessment. 3 Credit Hours.
Prerequisites: OEH 5723, OEH 5553, or equivalent, or permission of instructor. This course is designed to familiarize students with the different qualitative and quantitative approaches to assessing risks from occupational and environmental exposures to humans and ecosystems. The course will be based on established quantitative protocols for conducting risk assessments such as that used by the USEPA.
Course Type: Lecture

OEH 6683. Applied Modeling in Occupational & Environmental Health. 3 Credit Hours.
Prerequisites: OEH 5723, OEH 6793 The purpose of this course is to introduce critical modeling principles and applications used in occupational and environmental health (OEH) research. Upon completion of the class, students should be able to understand the principles of commonly used models. Students will select and apply models to assess the occupational exposure, environmental quality, and human health risk by using what they learned from the class. The student will also learn the methods to evaluate and validate the model data and outcome, as well as use models to support decision-making process.
Course Type: Lecture

OEH 6793. Aerosol Science. 3 Credit Hours.
Prerequisites: Graduate standing, mathematics through college algebra, college physics, and/or permission of the instructor. This course will familiarize students with the behavior of airborne particles (dusts, mists, fogs, etc.) of occupational and environmental health concern. Students will be able to recognize potential aerosol hazards, identify measurement methods appropriate to their characterization, and interpret measurement results in the light of current exposure standards.
Course Type: Lecture

OEH 6980. Research For Doctor's Dissertation. 1-16 Credit Hours.
May be repeated; maximum credit 16 hours. Research For Doctor's Dissertation
Course Type: Independent Study