ENVIRONMENTAL AND OCCUPATIONAL HEALTH (EOH)

EOH 5000 - Environmental and Occupational Health
Credit(s): 2 or 3 Credits
Course addresses the interaction of the physical, psychological, and social environments of individuals in which they work and live. It presents a broad survey of the major environmental issues facing contemporary society in first and third world countries. The course combines an overall ecological concern with specific elements related to personal and community health, emphasizing the interrelatedness of the two and conveying an awareness of how current environmental issues directly affect our lives. (Offered twice each year.)

EOH 5100 - Human Toxicology and Environmental Health
Credit(s): 3 Credits
Toxicology is the basic science of poison and its adverse effects on living organisms. These deleterious effects on man are the focus of this course. The fundamental information that make up the core of toxicology will be introduced. The course will be divided into five basic areas: (1) basic principles, (2) effects on the organ system, (3) review of general categories of toxic agents, (4) basic environmental toxins, and (5) the general application of toxicology. (Offered annually.)

EOH 5200 - Evaluation of Environmental Hazards
Credit(s): 3 Credits
This course presents the study of chemical, physical, and biologic agents, and ergonomic factors related to environmental and occupational exposures. Methodologies used for their recognition and evaluation relative to potential health effects and the etiology of related illness and disease are discussed. Federal and State regulatory requirements of the Environmental Protection Agency, the Occupational Safety and Health Agency, other relevant federal and state agencies and consensus organization will be addressed. (Offered annually.)
Prerequisite(s): EOH 5000

EOH 5220 - Occupational Safety
Credit(s): 3 Credits
This course provides an overview of the managerial, behavioral, and engineering-technical aspects of occupational safety. Historical perspectives, regulatory compliance and industry best practices are discussed. The course also addresses current trends in worker compliance and participation as well as the technical aspects of an array of applicable regulatory standards. Specific technical aspects are explored in greater depths in support of the research paper/presentation and directed study components of the course. (Offered annually.)
Prerequisite(s): EOH 5000

EOH 5270 - Environmental Forensics
Credit(s): 3 Credits
This course will serve as an introduction to the field of site investigation. We will discuss the role of the environmental scientist in the field through lecture, case studies, and assignments. This course will identify the tools of the environmental scientist which are many and varied, from historical documents to chemical fingerprinting and radio-dating.

EOH 5290 - Environmental and Occupational Laboratory
Credit(s): 3 Credits
This course emphasizes the use and application of sampling and analytical methodologies for environmental and occupational exposure measurement, and toxicity testing of chemical and physical agents in the environment. This is a quantitative, hands on, instrumentation and laboratory based course. Field use application is introduced. (Offered annually)
Prerequisite(s): EOH 5000

EOH 5300 - Biological Hazards in Modern and Developing Countries
Credit(s): 3 Credits
This course addresses the nature of biological hazards at the intersection of developing and modern countries. These hazards are described by their sources, pathways, routes of entry, and health effects of infectious and allergenic agents that are found in either workplaces or the general environment. Through in-depth field exercise, lectures, and case studies, students will learn how to identify, measure, and control biological agents that are present in a variety of settings. Basic concepts from aerosol science, industrial hygiene, microbiology, infectious disease epidemiology, sanitation, behavioral science, and environmental engineering are applied to problems of infectious or allergic disease prevention and control. (Offered annually.)
Prerequisite(s): EOH 5000

EOH 5400 - Human Health Risk Analysis
Credit(s): 3 Credits
This course introduces the concepts of qualitative and quantitative methods of risk assessment. Class discussions, reading assignments, lectures and case studies are used to introduce and develop knowledge of information sources pertaining to assumptions, uncertainties, end-product determinations, and interpretations associated with the various components of the risk-assessment process. Students will apply quantitative risk analysis methodology on real-life cases. (Offered annually.)
Prerequisite(s): EOH 5000; (BST 5000 or BST 5020)

EOH 5500 - Environmental and Occupational Epidemiology
Credit(s): 3 Credits
This course presents the epidemiological methods used to investigate the health effects of occupational and environmental exposures to toxins. Epidemiological evidence concerning the health effects of selected occupational and environmental exposures will be critically reviewed and evaluated. (Offered annually.)
Prerequisite(s): BST 5000; EOH 5000; EPI 5000

EOH 5560 - Policy, Science and Decisions in Environmental Health
Credit(s): 3 Credits
The purpose of this course is to provide students with analytical tools they can use to think critically about environmental policymaking. The focus of the course is on the interface between the fields of environmental, public health, and policy sciences. Therefore, special attention is paid to policy decisions that affect environmental protection and public health. The course examines the current approaches to environmental regulation such as command and control, comparative risk assessment, and market-based incentives. It also discusses environmental justice issues, sustainable development, and policies concerning particular environmental problems in the United States and the international community. (Offered annually.)
Prerequisite(s): EOH 5000

EOH 5930 - Special Topics
Credit(s): 3 Credits (Repeatable for credit)
EOH 5960 - Capstone in Environmental and Occupational Health
Credit(s): 3 Credits
The ultimate purpose of the course is in skill building for the professional practice of EOH. A framework for solving problems throughout the many sub-specialties of the EOH field is presented. Students are given assignments on major and challenging issues that confront the EOH investigator, program manager, and policy maker that are relevant to a range of jobs and careers throughout the profession. Students learn about the profession through an environmental and occupational health audit where scientific skills must be matched with ethical, business, managerial, political, and communication acumen.

EOH 5970 - Research Topics in Environmental and Occupational Health
Credit(s): 1-4 Credits
This course provides direct research experience in environmental health. Content is developed jointly between the student(s) and a faculty mentor.

EOH 5980 - Graduate Reading in Environmental and Occupational Health
Credit(s): 1-3 Credits
This course provides specialized study in environmental health to enhance skills in literature review and problem solving. Content is developed jointly between the student(s) and a faculty mentor.

EOH 6400 - Exposure Assessment Methods
Credit(s): 3 Credits
This area is of growing importance in research and professional areas such as industrial hygiene, epidemiology, toxicology, environmental management and engineering, and regulatory policy development. Topics include an overview of methodologies and applications, representative exposure monitoring strategies and methods, exposure categories, assessing exposure histories, and risk assessment models. (Offered annually)

EOH 6930 - Special Topics
Credit(s): 3 Credits (Repeatable for credit)

EOH 6970 - Research Topics in Environmental and Occupational Health
Credit(s): 1-3 Credits

EOH 6980 - Graduate Reading
Credit(s): 1-3 Credits (Repeatable for credit)