

ENVIRONMENTAL HEALTH SCIENCES (EHS)

EHS 50060 PUBLIC HEALTH LABORATORY METHODS 3 Credit Hours

(Slashed with PH 40060) Course introduces the student to the fundamental theory and hands on use to track specimen collection and laboratory analysis. Environmental specimens are examined for their public health importance using classical and modern techniques. Students learn classical laboratory methods and their modern use in the laboratory environment. Examples include culture and microscopic identification of microorganisms, identification of disease vectors, detection of newborn disease and detection of terrorism agents.

Prerequisite: BSCI 30140 or CHEM 10062 or CHEM 10971 or PH 30006; and graduate standing.

Schedule Type: Combined Lecture and Lab

Contact Hours: 2 lecture, 1 lab

Grade Mode: Standard Letter

EHS 50109 LABORATORY SAFETY AND HYGIENE 3 Credit Hours

(Cross-listed with PH 40109) Basic introduction to laboratory safety, chemical hygiene, and biosafety. Includes the research compliance programs of institutions (IBC, IACUC, IRB, RSC) and the OSHA Chemical Hygiene Standard requirements and program responsibilities. General lab safety concepts are reviewed, along with chemical handling and storage, fumehoods and ventilation, hazardous waste disposal, radiation safety, and lab design. Basic principles of biosafety are covered, BSL 1-4 levels, biosafety cabinets, select agents, bloodborne pathogens, NIH Guidelines, biosecurity and animal use.

Prerequisite: Graduate standing.

Schedule Type: Field Experience, Lecture

Contact Hours: 2.67 lecture, .33 other

Grade Mode: Standard Letter

EHS 50196 INDIVIDUAL INVESTIGATION IN ENVIRONMENTAL HEALTH SCIENCES 1-3 Credit Hours

(Repeatable for maximum 6 credits) Individual graduate investigation or research in areas related to environmental health sciences.

Prerequisite: Graduate standing; and special approval.

Schedule Type: Individual Investigation

Contact Hours: 1-3 other

Grade Mode: Standard Letter-IP

EHS 52018 ENVIRONMENTAL HEALTH CONCEPTS IN PUBLIC HEALTH 3 Credit Hours

Provides a comprehensive overview of the core topics in environmental health as related to public health.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 52100 CLIMATE CHANGE AND POPULATION HEALTH 3 Credit Hours

(Slashed with PH 42100) This course reviews evidence on the rigorous scientific consensus confirming global warming and the mechanisms underlying climate change, with a focus on adverse population health impacts. Increases in the frequency and intensity of extreme weather events including heatwaves, tropical cyclones and severe storms create hazardous conditions including flooding, drought, wildfires, increases in vector-borne diseases, food and nutrition shortages, human displacement and mental health issues. Populations at increased risk are identified along with a consideration of climate ethics, justice and public health approaches used to address the population health effects. Strategies for abatement through injury and disease prevention, climate risk communication and strategies for mitigation including green energy and energy conservation are examined.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 53009 EMERGING ENVIRONMENTAL HEALTH ISSUES AND RESPONSE 3 Credit Hours

Provides an overview of emerging environmental health issues that will impact the public's health.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 53012 OCCUPATIONAL SAFETY AND HEALTH 3 Credit Hours

Survey of major concepts and issues relating health and safety in the workplace. Emphasis is on the application of public health principles and decision-making practices used by various worker populations for the prevention of injury and disease on the job. This course will cover protective equipment, hazardous conditions, environmental toxins, risk assessment, prevention science approaches and workplace health promotion.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 53014 BUILT ENVIRONMENT AND PUBLIC HEALTH 3 Credit Hours

(Slashed with PH 43013) The impact of the built environment on human health is an issue of global importance. The focus of this course is on preventing disease and injury while improving the health of populations by looking "upstream" at the built environment or those settings designed, created and maintained by human efforts. Population health effects of community design are explored through scientific literature, and include transportation, land use, parks and green space in the context of physical activity, food environments, air and water quality, injury prevention, social capital and health equity. Students examine and use population health tools to assess the built environment and develop strategies for creating sustainable healthy places through multidisciplinary collaboration, research and policy that promotes the health of the public.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 60191 VARIABLE CONTENT SEMINAR IN ENVIRONMENTAL HEALTH SCIENCES 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours) Seminar on current and important topics in environmental health sciences. Subject matter varies depending on the topic.

Prerequisite: Graduate standing.

Schedule Type: Seminar

Contact Hours: 1-3 other

Grade Mode: Standard Letter

EHS 60192 PRACTICUM EXPERIENCE IN ENVIRONMENTAL HEALTH SCIENCES 3,6 Credit Hours

Observational and participation in public health activities of a public health agency, hospital or other approved organization. Students complete the field experience with joint supervision from the university and approved organization or agency.

Prerequisite: Graduate standing and special approval.

Schedule Type: Practical Experience

Contact Hours: 9-18 other

Grade Mode: Satisfactory/Unsatisfactory-IP

EHS 60195 SPECIAL TOPICS IN ENVIRONMENTAL HEALTH SCIENCES 1-3 Credit Hours

(Repeatable for a maximum of 6 credit hours) Special topics to sample new offerings on topics in environmental health sciences.

Prerequisite: Graduate standing.

Schedule Type: Lecture

Contact Hours: 1-3 lecture

Grade Mode: Standard Letter

EHS 60292 APPLIED PRACTICE EXPERIENCE IN ENVIRONMENTAL HEALTH SCIENCES II 1 Credit Hour

(Repeatable for credit) Continuing enrollment for students participating in public health activities of a public health agency, hospital or other approved organization. Students complete the field experience with joint supervision from the university and an approved organization or agency.

Prerequisite: EHS 60192; and graduate standing; and special approval.

Schedule Type: Practical Experience

Contact Hours: 15 other

Grade Mode: Satisfactory/Unsatisfactory

EHS 63010 APPLIED RISK ASSESSMENT 3 Credit Hours

Introduces the student to environmental and occupational hazards, assessing the risks associated with hazard exposure. Standard principles of risk assessment are emphasized including methods of hazard identification and regulation, quantitative exposure measurement, dose and toxicity relationships and risk management. Analysis of public policy regulatory guidance and health advisory watchdog recommendations are evaluated.

Prerequisite: EPI 52017; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter

EHS 63011 APPLICATION OF RISK ANALYSIS IN ENVIRONMENTAL HEALTH 3 Credit Hours

Students are introduced to methods in risk analysis that are applied by U.S. federal, state, and local agencies in their assessment of chemical toxicants. Linkages between risk assessment, risk management, and risk communication will be studied as components of this process, along with issues and controversies in the analysis of environmental health risks.

Prerequisite: EPI 52017; and graduate standing.

Schedule Type: Lecture

Contact Hours: 3 lecture

Grade Mode: Standard Letter