Department of Environmental Health Sciences

The mission of the Department of Environmental Health Sciences is to train its graduates to recognize the public health implications of environmental and occupational factors. We study the factors responsible for influencing mortality and morbidity trends in human populations.

Masters Degrees


**ENVH 7090 Selected Topics in Environmental Health Sciences**
1-3 Credit Hours. 1-3 Lecture Hours. 0 Lab Hours.
Allows the student the opportunity to receive specialized and/or focused instruction in an environmental health topic not generally offered by the department.

**ENVH 7231 Air Quality**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
Introduces students to chemical, physical, and biological principles of air quality, as well as potential sources of contamination and the resulting effects. The course will also introduce environmental policies pertinent to air issues along with current remediation strategies to ameliorate pollution.
Prerequisite(s): A minimum grade of "C" in PUBH 6532.

**ENVH 7232 Water Quality**
3 Credit Hours. 2 Lecture Hours. 2 Lab Hours.
Introduces students to chemical, physical, and biological principles of water quality, as well as potential sources of contamination and the resulting effects. The course will also introduce environmental policies pertinent to water issues along with current treatment and remediation strategies to ameliorate pollution.
Prerequisite(s): A minimum grade of "C" in PUBH 6532.

**ENVH 7233 Environmental Exposure and Impact Assessment**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course introduces students to appropriate design, implementation, and analysis of primary environmental exposures. Specific topics covered include designing risk profiles, analyzing field exposures of toxins, development of impact assessments, and evaluating dose-response relationships.
Prerequisite(s): A minimum grade of "C" in PUBH 6533 and ENVH 7231 or ENVH 7232.

**ENVH 7234 Environmental Toxicology**
3 Credit Hours. 3 Lecture Hours. 1 Lab Hour.
This course introduces students to concepts associated with the lethal and sub-lethal effects of environmental and occupational stressors on humans and other living organisms. The course also includes laboratory experiments designed to enhance comprehension, among students, in the area of toxicology.
Prerequisite(s): A minimum grade of "C" in PUBH 6532.

**ENVH 7235 Field Methods in Environmental Health**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
This course introduces students to an overview of current and accepted standards of environmental and occupational exposure monitoring. Also examines the field methodology related to sample collection for water and air quality monitoring.

**ENVH 7236 Spatial Analysis for Environmental Health Sciences**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
Introduces students to concepts and methods of spatial analysis related to environmental health problems and public health planning. Students will also employ basic concepts of mapping through the use of applicable Geographic Information Systems software.

**ENVH 7237 Risk Assessment and Communication**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
Introduces students to the qualitative and quantitative skills necessary to evaluate the probability of injury, disease, or death in the general population from exposure to environmental contaminants. Hazard identification, exposure assessment, dose-response evaluation, and risk characterization are highlighted. Risk communication includes developing practical skills in assessing health concerns and explaining potential health risks or risk management to the general public.
Prerequisite(s): A minimum grade of "C" in ENVH 7233.

**ENVH 7238 Environment, Ethics and Equity**
3 Credit Hours. 3 Lecture Hours. 0 Lab Hours.
Introduces students to the qualitative and quantitative skills necessary to evaluate the probability of injury, disease, or death in the general population from exposure to environmental contaminants. Hazard identification, exposure assessment, dose-response evaluation, and risk characterization are highlighted. Risk communication includes developing practical skills in assessing health concerns and explaining potential health risks or risk management to the general public.
Prerequisite(s): A minimum grade of "C" in PUBH 6532.

**ENVH 7239 Public Health Laboratory**
3 Credit Hours. 0 Lecture Hours. 6 Lab Hours.
This course introduces students to the laboratory practices and skills necessary to sample, archive, transport, process and analyze environmental materials. Experiences include the design of laboratory experiments including the applications of contemporary laboratory microbiological, cell culture and molecular and instrumental tools used for testing environmental specimens. Experiences will also include silico analysis of laboratory test results, writing technical reports and presenting the outcomes of the research.
Prerequisite(s): A minimum grade of "C" in PUBH 6532 and BIOS 6541 and ENVH 7231 and ENVH 7232 or permission of instructor.

**ENVH 7890 Directed Individual Study**
1-3 Credit Hours. 1-3 Lecture Hours. 0 Lab Hours.
Provides the student with an opportunity to investigate an area of interest under the direction of a faculty mentor.