

## MPH in Environmental and Occupational Health Sciences Academic Year 2012-2013

The Masters of Public Health degree program prepares students to address the following core competencies while advancing their knowledge of public health:

1. **Public Health Knowledge and Skills**-The MPH student will apply basic knowledge and skills of the core public health sciences that include: biostatistics, epidemiology, health management and policy, behavioral and community health, and environmental and occupational health, to the prevention of illness and injury and the promotion of population health.
2. **Integration of Theory and Practice**-The MPH student will demonstrate the effective integration of theory and practice related to public health issues that affect diverse populations, through a thesis or comprehensive examination and a practice experience.
3. **Communication and Informatics**-The MPH student will gather, organize, and manage data and information effectively to address public health issues through oral and written communications to diverse professionals and lay audiences.
4. **Diversity and Culture**-The MPH student will demonstrate the ability to interact with both diverse individuals and communities to produce or impact an intended public health outcome.
5. **Professionalism**-The MPH student will apply ethical principles to the practice of public health in a variety of settings, demonstrating personal integrity while embracing diverse communities.

Natural environmental processes and human interaction affect the micro and macro environment in which we live, and directly effects or influences health. The MPH in Environmental and Occupational Health Sciences prepares present and future public health scientists and practitioners to assess and evaluate physical, chemical and biological stressors in the environments people live and work, and identify and develop effective intervention and control methodologies. Interaction with a diverse faculty and competency-based curriculum exposes students to sound scientific theory and methodology in several disciplines and integrates their application to the field of environmental and occupational health. Students in this concentration are provided with the unique opportunity to translate knowledge acquired in the classroom and laboratory into practical applications in the real world through participation in faculty research; internships in industry, state or national agencies; and visits to these organizations. In addition to required courses such as environmental data analysis, human health toxicology, and hazard recognition, evaluation and control, coursework can be taken for additional focus in areas such as occupational health practice/industrial hygiene; exposure and risk assessment; environmental epidemiology; global environmental health; policy; and air pollution. For professionals already in the field of environmental and occupational health, this MPH concentration provides students with an excellent opportunity to enhance their knowledge and expertise in specific areas of interest by working alongside faculty researchers and environmental and occupational professionals at the local, state, national and international level. Students in the environmental and occupational health concentration take an average of two years to complete a minimum of 48 semester credit hours to earn the MPH degree. By the conclusion of the MPH program, a student in the environmental and occupational health science concentration will be able to apply their knowledge and skills to:

1. Identify and discuss health, safety, and ecological impacts of environmental agents
2. Recognize and describe factors that modify exposures to environmental hazards
3. Perform the processes of recognizing, evaluating, and controlling hazards

4. Identify and understand environmental and occupational health policies, regulations and standards/guidelines
5. Develop, apply and evaluate programs in environmental and occupational health

## Environmental Health Curriculum (48 Semester Credit Hours)

### CORE COURSES: 15 SCH

BACH	5300	Theoretical Foundations of Individual & Community Health	3 SCH
BIOS	5300	Biostatistics for Public Health 1	3 SCH
EOHS	5300	Environmental Health	3 SCH
EPID	5300	Principles of Epidemiology	3 SCH
HMAP	5300	Introduction to Health Management and Policy	3 SCH

### REQUIRED COURSES: 15 SCH

EOHS	5310	Evaluation and Control of Biological Agents and Infectious Disease	3 SCH
EOHS	5330	Recognition, Evaluation and Control of Environmental Hazards	3 SCH
EOHS	5331	Environmental and Occupational Sampling and Analytical Methods	3 SCH
EOHS	5350	Environmental and Occupational Toxicology	3 SCH
BIOS	5310	Biostatistics for Public Health 2	3 SCH

### PRACTICE EXPERIENCE: 3 SCH

EOHS	5397	Public Health Practice Experience	3 SCH
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### RECOMMENDED ELECTIVE COURSES: 15 SCH

EOHS	5312	Food Quality and Safety	3 SCH
EOHS	5320	TX-Mexico Border Health Issues	3 SCH
EOHS	5322	Air Pollution and Health	3 SCH
EOHS	5324	Water and Public Health: Global to Regional Perspectives	3 SCH
EOHS	5334	Occupational Diseases and Health Practice	3 SCH
EOHS	5340	Exposure and Risk Assessment	3 SCH
EOHS	5342	Biomarkers in Environmental Epidemiology	3 SCH
EOHS	5362	Geographic Information Systems (GIS) and Health	3 SCH
EOHS	5370	Policy, Science and Decisions	3 SCH
EOHS	5391	Special Topics in Environmental & Occupational Health Sciences	1-3 SCH
EOHS	5399	Independent Study in Environmental & Occupational Health Sciences	1-3 SCH
EOHS	6300	Environmental Health Determinants	3 SCH
EOHS	6324	Genomics and Public Health	3 SCH
EOHS	6348	Spatiotemporal Environmental Health Modeling	3 SCH
EOHS	6391	Advanced Topics in Environmental & Occupational Health Sciences	1-3 SCH
EPID	6326	Occupational Epidemiology	3 SCH

- Students may substitute an elective course not on this list with prior approval of their advisor.

For the TX - Mexico Border Health Issues course (EOHS 5320), all students must have a Passport prior to taking this course, and international students must also have a US multi-entry Visa and purchase a travel visa for Mexico prior to taking this course.

### CULMINATING EXPERIENCE: 0 SCH

PHED	5000	Certified in Public Health Examination	0 SCH
EOHS	5001	MPH Comprehensive Examination	0 SCH

The UNTHSC School of Public Health reserves the right to make changes at any time to reflect current program and curriculum updates and does not constitute a contract between the Health Science Center and a student or applicant for admission.