

Master of Public Health (MPH) Environmental and Occupational Health Sciences Concentration
Competencies and Learning Outcomes
Department of Environmental and Occupational Health Sciences (EOHS)

MPH – EOHS C1: Identify and discuss health, safety, and ecological impacts of environmental agents

- LO.1.1:** Identify and discuss primary environmental and occupational agents/stressors, their sources, transport mechanisms, uptake routes, dose response factors and health effects.
- LO. 1.2:** Compare, evaluate and contrast human uptake and effect by route, rate and magnitude of exposure.
- LO.1.3:** Understand and describe the processes and mechanisms by which hazards are produced, released, transported, modified in the environment and effect health.
- LO. 1.4:** Recognize the effects of global climate change on emerging threats to public health.
- LO. 1.5:** Prioritize and communicate environmental and occupational risks for susceptible populations.

MPH – EOHS C2: Recognize and describe factors that modify exposures to environmental hazards

- LO.2.1:** Recognize interactions between the environment and genetic, physiologic, psychosocial, and cultural factors that affect and/or linked to adverse health outcomes.
- LO.2.2:** Demonstrate understanding of elements of environmental risk and issues of environmental justice.
- LO.2.3:** Describe and compare fixed and modifiable factors that can be used to reduce adverse health outcomes resulting from exposure to environmental hazards.
- LO.2.4:** Describe basic toxicological principles influencing susceptibility to stressors associated with organism genetics, uptake and absorption, distribution, metabolism and elimination.
- LO.2.5:** Construct and apply dose response models and exposure mechanisms to evaluate health risk.
- LO.2.6:** Describe how a community's norms and culture influence exposure to environmental hazards.

MPH – EOHS C3: Perform the processes of recognizing, evaluating, and controlling hazards

- LO.3.1:** Identify sources of information for characterizing hazards.
- LO.3.2:** Discuss and describe methods to assess and interpret the exposure characteristics and magnitude of a hazard.
- LO.3.3:** Identify and communicate strategies for preventing and controlling hazards within the biological, cultural, and behavioral context of populations.
- LO.3.4:** Identify strategies that can be used to reduce the impact of genetic, physiologic, psychosocial, and cultural factors on susceptibility to adverse health outcomes.
- LO.3.5:** Design methods to evaluate and measure exposures.
- LO.3.6:** Calculate environmental and occupational exposures, interpret and communicate risk appropriate to the affected population.
- LO.3.7:** Demonstrate understanding of selection and use of control measures for workplace and community hazards.

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MPH – EOHS C4: Identify and understand environmental and occupational health policies, regulations and standards/guidelines

LO.4.1: Identify the US and International policy, regulatory and standard setting organizations.

LO.4.2: Identify the implications of environmental policies and standards on social justice.

LO.4.3: Recognize how environmental issues are used in the development of global, national and local policies.

LO.4.4: Describe the process of policy development, promulgation, setting and enforcement of regulations.

LO.4.5: Construct risk management strategies for emerging threats based on the use of national and international standards.

LO.4.6: Understand the political and economic dynamics on the development and implementation of environmental policies and programs.

MPH – EOHS C5: Develop, apply and evaluate programs in environmental and occupational health

LO.5.1: Develop community and workplace environmental, health and safety programs.

LO.5.2: Demonstrate knowledge of measures of control effectiveness.

LO.5.3: Apply cost-benefit and risk analysis in risk management.

LO.5.4: Demonstrate understanding of management and labor issues.

LO.5.5: Apply management practices to environmental and occupational health issues.