MSPH: Industrial Hygiene

The field of industrial hygiene plays an important role in the protection of worker health through workplace assessment and interventions. The training in industrial hygiene is designed to build on the basic skill of engineers and scientists so that they will be able to anticipate, recognize, evaluate, and control hazards in the work place. The development of research skills is also a critical component of the program. The curriculum includes the public health core courses, and program courses relating to occupational diseases, exposure assessment, control measures, and assessment of risk. Graduates are expected to contribute to worker health through their ability to gather data, form opinions, recommend solutions and interact with management, employees, and the community in implementing the solutions. Students will have the opportunity to expand their technical base through electives in the areas of environmental health, industrial safety, risk management, and ergonomics. It is expected that the students will pursue professional certification. The MSPH in Industrial Hygiene is accredited by the Applied Science Accreditation Commission of ABET, http://www.abet.org.

In addition to the overall Master in Public Health* degree competencies, *Industrial Hygiene* graduates *will* develop the following competencies:

- 1. Recognize health hazards that cause illness and injury associated with occupations;
- 2. Apply basic scientific and engineering principles to anticipate and identify actual and potential health hazards in the workplace;
- 3. Interpret literature and incorporate this knowledge into the evaluation and management of occupational health hazards;
- 4. Apply the principles of engineering in the design of appropriate controls for workplace health hazards;
- 5. Evaluate need, recommend, maintain, and manage the use of appropriate types of personal protective equipment for control of worker exposures;
- 6. Conceptualize, develop, manage, and evaluate health programs in industry and elsewhere;
- 7. Communicate verbally and in writing research methods, results, conclusions, and implications as demonstrated through the preparation and defense of a thesis;
- 8. Communicate verbally and in writing to professional peers, labor, management, and diverse community populations, the nature, risks, and remediation of occupational health hazards; and
- 9. Interpret and assure compliance with applicable government regulations and national standards for good work practices related to occupational safety and health.

*The MSPH in Industrial Hygiene is a professional degree thus includes the same core degree competencies as our MPH.

Association between courses and the competencies for Master of Science in Public Health degree with a concentration in Industrial Hygiene

Courses	Competencies								
Required concentration courses	1	2	3	4	5	6	7	8	9
Industrial Hygiene	Х	Х	Х	Х	Х	Х		Х	Х
Industrial Hygiene – Physical Agents	Х	Х	Х	Х	Х			Х	Х
Environmental Occupational Toxicology	Х		Х					Х	Х
Industrial Ergonomics	Х	Х	Х	Х				Х	
Analytical Method in Industrial Hygiene I	Х	Х	Х					Х	Х
Analytical Method in Industrial Hygiene	Х	Х	Х					Х	Х
Control Aspects of Industrial Hygiene	Х	Х		Х	Х			Х	Х
Occupational Health Law			Х			Х		Х	Х
Safety Management Principles and Practices	Х	Х	Х		Х	Х		Х	Х
Industrial Ventilation	Х	Х		Х				Х	Х
Thesis (6 credit hours)							Х		
Public Health Seminar									
Electives (5 credit hours)									
Supervised Field Experience									
Suggested Support Courses									