

# MS IN OCCUPATIONAL HEALTH

## Program of Study for the Master of Science in Occupational Health: Industrial Hygiene Program

The Master of Science in Occupational Health (MSOH) degree program is available in Industrial Hygiene. Industrial hygiene professionals are involved in understanding and implementing scientific, technical, and regulatory aspects that focus on preventing and controlling workers' exposures to factors and agents that can cause them harm.

The comprehensive and flexible curriculum provides a solid foundation of information for students with limited or no background in industrial hygiene, while simultaneously offering students with professional experience the opportunity to expand the scope of their knowledge and skills. The program offers classes during evenings to facilitate graduate study for those engaged in full-time daily employment.

The MSOH program is accredited by the Applied and Natural Science Accreditation Commission of ABET. The degree requires a minimum of four semesters to complete as a full-time student, while part time students take approximately eight semesters to complete the program.

Applicants must apply online through SOPHAS as well as complete a UToledo Student Conduct Form and pay a UToledo Graduate Application Fee to the University of Toledo. All required documentation must be submitted to SOPHAS electronically.

Submission materials must include 1) official transcripts from all institutions where they have taken courses (transcripts from institutions from outside the US must be translated, evaluated, and reported on the 4.00 scale using WES (World Education Services), 2) 3 letters of recommendation (2 of which must be from persons with a graduate degree; one can have professional certification such as CIH), 3) a resume, and 4) a letter of interest (statement of purpose).

Regular admission to the MSOH program requires:

- An earned bachelor's degree from an accredited college or university
- GPA  $\geq$  3.00 (on a 4.00 scale) for regular admission and GPA 2.7 < GPA < 3.0 for provisional admission.
- Foundation courses in biology or related science (e.g., biology, biochemistry, anatomy, physiology, etc.), general and organic chemistry, physics, college-level math, social science
- Work experience based on applicability and duration and applicable certifications such as CIH or CSP will also be considered
- An English proficiency score from either TOEFL (80 or higher) or IELTS (6.5 or higher) must be submitted. No other English proficiency scores are accepted by the program

The MSOH degree has a minimum of 40 credit hours for degree requirements. The curriculum incorporates the general areas of science, technology, management, and communication within the context of the core courses and thesis requirements for the MSOH degree.

All MSOH students take the following courses. For those students not requiring an internship, 1 advised elective is added.

Code	Title	Hours
PUBH 5020	Occupational Health	3
PUBH 5060	Occupational Safety	3
PUBH 5160	Environmental Health	3
PUBH 5260	Haz Mat and Emerg Response	3
PUBH 5310	Chemical Agents	3
PUBH 5410	Hazard Control	3
PUBH 5520	Biological Agents	3
PUBH 5620	Physical Agents	3
PUBH 5700	Risk Assessment	3
PUBH 6000	Quantitative and Qualitative Data Analysis in Public Health	3
PUBH 6010	Public Health Epidemiology	3
PUBH 6960	Internship in Public Health (3 credits required if <1 year experience, otherwise 3 credits advised electives)	3
PUBH 6970 or PUBH 6990	Project in Public Health Thesis Research	4
<b>Total Hours</b>		<b>40</b>

- PLO 1. Explain fundamental aspects of safety and environmental health.
- PLO 2. Interpret and apply applicable occupational and environmental regulations.
- PLO 3. Identify agents, factors, and stressors generated by and/or associated with defined sources, unit operations, and/or processes.
- PLO 4. Examine qualitative and quantitative aspects of generation of agents, factors, and stressors.
- PLO 5. Examine the physiological and/or toxicological interactions of physical, chemical, biological, and ergonomic agents, factors, and/or stressors with the human body.
- PLO 6. Assess qualitative and quantitative aspects of exposure assessment, dose response, and risk characterization based on applicable pathways and modes of entry.
- PLO 7. Calculate, interpret, and apply statistical and epidemiological data.
- PLO 8. Recommend and evaluate engineering, administrative, and personal protective equipment controls and/or other interventions to reduce or eliminate hazards.
- PLO 9. Analyze and interpret data, whether from original research or other published sources.
- PLO 10. Construct scientific and technical summaries and reports.
- PLO 11. Implement business and managerial practices focusing on project and program management.
- PLO 12. Explain the necessity of teamwork among management, industrial hygienists, safety specialists, environmental specialists, engineers, and clinicians (i.e., occupational health physicians and nurses).
- PLO 13. Discuss the importance of appropriate ethical performance and practice.

- PLO 14. Develop the knowledge and skills necessary to attain recognized professional certification.