

OCCUPATIONAL SAFETY AND HEALTH
MASTER OF SCIENCE DEGREE
CURRICULUM OPTIONS, FALL 2010 – SUMMER 2012

OBJECTIVES

The graduate program in Occupational Safety and Health is designed to prepare students to become competent and demonstrate knowledge in the occupational safety and health program options: environmental health and safety, industrial hygiene and safety management. Persons pursuing this degree must have a B.Sc. degree in Occupational Safety and Health, or a related field, and/or complete a core of 21 credit (semester) hours of undergraduate work.

SPONSORING UNIT

Department of Occupational Safety and Health
College of Health Sciences and Human Services
Murray State University
Murray, Kentucky 42071

DEGREE OFFERED

Master of Science

TOTAL CREDIT HOURS: [30]

Thesis Track

Non-Thesis Track

SCIENCE AND MATH REQUIREMENTS

Undergraduate course work is required in biology, chemistry, mathematics, and physics. The following courses are the minimum accepted requirements for pursuing a master's degree in OSH.

- BIO 101, Biological Concepts
- CHE 105, Introductory Chemistry I
- CHE 210/215, Brief Organic Chemistry and Lab
- MAT 230, Technical Math. II
- PHY 125/126, Brief Introductory Physics and Lab

OTHER DEGREE REQUIREMENTS

- Comprehensive examination (non-thesis track)
- Oral defense of thesis (thesis track)
- 15 hours of 600 level courses excluding practicum and internship credits (non-thesis track)
- 12 hours of 600 level courses excluding thesis (thesis track)

SPECIAL INSTRUCTIONS AND NOTES

- Students selecting the environmental option must take OSH 311
- Students selecting the industrial hygiene option must take OSH 425, OSH 626 & OSH 656
- Students selecting the safety management option must take OSH 384
- Students selecting to do thesis must take OSH 657
- Students with no adequate undergraduate statistics preparation must take OSH 637
- OSH 644 can substitute for OSH 670

**OCCUPATIONAL SAFETY AND HEALTH
MASTER OF SCIENCE DEGREE, COURSES OF STUDY**

UNDERGRADUATE PREREQUISITES [21 CREDIT HOURS]	<u>CR.</u>
OSH 192 Introduction to Occupational Safety and Health	3
OSH 287 OSHA Standards for General Industry and Construction	3
OSH 320 Environmental and Occupational Health Engineering Tech.	3
OSH 353 Prevention of Musculoskeletal Disorders in the Workplace	3
OSH 420 Fundamentals of Industrial Hygiene	3
OSH 452 Systems Approach to Hazard Control	3
and SELECT 1 COURSE FROM THE FOLLOWING BASED ON OPTION	
(Environmental Option)	
- OSH 311 Hazardous Materials and Emergency Planning	3
(Safety Management Option)	
- OSH 384 Construction Safety	3
(Industrial Hygiene Option)	
- OSH 425 Physical Agents	3
TECHNICAL REQUIREMENTS * [18 CREDIT HOURS]	
OSH 621 Industrial Hygiene and Safety Program Development	3
OSH 623 Occupational Diseases	3
OSH 626 Industrial Hygiene Sampling Strategies	3
OSH 636 Motor Fleet Safety	3
OSH 637 Biostatistics and Probability	3
OSH 640 Safety and Health Program Management and Training	3
OSH 645 Loss Control Measurement and Management	3
OSH 646 Fundamentals of Risk Control	3
OSH 654 Philosophy of Safety and Health	3
OSH 655 Legal Aspects of Safety and Health	3
OSH 656 Ergonomics and Biomechanics	3
OSH 658 Introduction to Occupational Epidemiology	3
OSH 670 Internship in Safety and Health (or approved elective with prior safety internship or equivalent)	3
OSH 680 Graduate Seminar in Occupational Safety and Health	3
OSH 698-699 Thesis (THESIS MAY SUBSTITUTE FOR OSH 670 & OSH 680)	6
SAFETY MANAGEMENT OPTION [12 CREDIT HOURS]	
OSH 621 Industrial Hygiene and Safety Program Development	3
OSH 650 Occ. Safety & Health Organizl. Leadership and Management	3
OSH 655 Legal Aspects of Safety and Health	3
OSH 657 Current Literature and Research in Safety and Health	3
INDUSTRIAL HYGIENE OPTION [12 CREDIT HOURS]	
OSH 621 Industrial Hygiene and Safety Program Development	3
OSH 622 Toxicology of Industrial Materials	3
OSH 627 Air Contaminants and Industrial Ventilation	3
OSH 663 Applied Workplace Ergonomics	3
ENVIRONMENTAL OPTION [12 CREDIT HOURS]	
OSH 627 Air Contaminants and Industrial Ventilation	3
OSH 687 Wastewater Treatment	3
OSH 689 Solid and Hazardous Waste Treatment	3
OSH 697 Research in Environmental Health and Safety	3
an approved higher level course in environmental sciences	<u>OR</u> 3

* Technical requirements courses (18 credit hours) are selected based on the student's program option and must be approved by the graduate program advisor.