

Madonna University

Occupational Safety, Health, and Fire Science College of Science and Mathematics

About the Program

Overview

The combined group major of Occupational Safety, Health, and Fire Science provides students with the knowledge of standards, codes, and regulations of safety and health integrated with fire protection principles. It covers the study of factors in building structures and the uses of tools and materials that cause accidents.

Unique features

- Qualified faculty who are practitioners in the field of occupational safety, health and fire science
- Opportunity to gain on-the-job experience through cooperative education placements and internships
- Only four-year program in the State of Michigan integrating Occupational Safety, Health and Fire Science

Program Specifics

Students may pursue a bachelor or associate degree, as well as a minor. Certificate programs in Occupational Safety and Health and Environmental Safety and Health are also available.

Occupational Safety, Health, and Fire Science Major: Bachelor of Science (42 s.h.)

Required Major Courses:

FS 1010	Intro to Fire Protection and Prevention	3 s.h.
FS 2150	Building Construction	3 s.h.
FS 2910	Cooperative Education I*	
OR		
FS 2930	Internship I*	1-3 s.h.
FS 3220	Inspection and Survey of Facilities	3 s.h.
FS 3680	Fire Protection Systems I	3 s.h.
FS 3690	Fire Protection Systems II	3 s.h.
FS 3910	Cooperative Education II**	
OR		
FS 3930	Internship II**	1-3 s.h.
FS 4900	Fire Service Mgt.	3 s.h.
OSH 1020	Standards and Regs.	3 s.h.
OSH 3110	Industrial Safety and Health	OR
OSH 3310	Safety Program Mgt.	3 s.h.
OSH 3520	Industrial Hygiene I	3 s.h.
OSH 3980	Industrial Hygiene II	3 s.h.
OSH 4510	Hazardous Materials I	3 s.h.
OSH 4950	Senior Seminar	2 s.h.
	Major Electives	<u>1-7 s.h.</u>
Total		42 s.h.

Required Support Courses:

BIO 2240	Basic Human Physiology***	
OR		
BIO 2430	AND 2440 Anatomy and Physiology I and II***	
OR		
NSC 1250	Health Problems***	4-6 s.h.
CHM 1110	General Chemistry I	4 s.h.
CHM 1610	Intro to Life Chemistry	4 s.h.
MTH 1050	AND 1060 Intermediate Algebra and Trigonometry	OR
MTH 1210	Precalculus	5-7 s.h.
PHY 2530	General Physics I	4 s.h.
PHY 2540	General Physics II	<u>4 s.h.</u>
Total		25-29 s.h.

Occupational Safety, Health and Fire Science Major: Associate of Science (30 s.h.)

Required Major Courses:

FS 1010	Intro to Fire Protection and Prevention	3 s.h.
FS 2150	Building Construction	3 s.h.
FS 2910	Cooperative Ed. I*	
OR		
FS 2930	Internship I*	1-3 s.h.
FS 3220	Inspection and Survey of Facilities	3 s.h.
FS 3680	Fire Protection Systems I	3 s.h.
FS 3690	Fire Protection Systems II	3 s.h.
OSH 1020	Standards and Regs.	3 s.h.
OSH 3310	Safety Program Mgt.	
OR		
FS 4900	Fire Service Mgt.	3 s.h.
OSH 3520	Industrial Hygiene I	3 s.h.
OSH 4510	Hazardous Materials I	3 s.h.
	Major Electives	<u>0-2 s.h.</u>
Total		30 s.h.

Required Support Courses:

BIO 2240	Basic Human Physiology***	
OR		
BIO 2430	AND 2440 Anatomy and Physiology I and II***	
OR		
NSC 1250	Health Problems***	4-6 s.h.
CHM 1110	General Chemistry I	4 s.h.
CHM 1610	Intro to Life Chemistry	4 s.h.
MTH 1050	and 1060 Intermediate Algebra and Trigonometry	OR
MTH 1210	Precalculus	5-7 s.h.
PHY 2530	General Physics I	4 s.h.
PHY 2540	General Physics II	<u>4 s.h.</u>
Total		25-29 s.h.

* Required for preservice associate and baccalaureate students.

** Required for preservice baccalaureate students.

*** Students with current EMT licenses may apply for alternative credit for this requirement.



For Undergraduate Admissions Information

Office of Undergraduate Admissions
 Madonna University
 36600 Schoolcraft Road
 Livonia Michigan 48150-1176
 (734) 432-5339
 (800) 852-4951, ext. 5339
 Fax (734) 432-5424

Web: www.madonna.edu
 E-mail: admissions@madonna.edu

For Program Information

Gary Trujillo
 Physical and Applied Science
 Madonna University
 36600 Schoolcraft Road
 Livonia, Michigan 48150-1176
 (734) 432-5517
 (800) 852-4951 (ext. 5517)
 Fax (734) 432-5393

web: www.madonna.edu
 e-mail: gtrujillo@madonna.edu

Madonna University reserves the right to withdraw or modify information in this brochure.

See Advisor/Admissions Office for current information.

Madonna University guarantees the right to equal educational opportunity without discrimination because of race, religion, sex, national origin, age, or disabilities.

Occupational Safety and Health Minor (24 s.h.)

Required Minor Courses:

OSH 1020	Standards and Regs.	3 s.h.
OSH 3220	Inspection and Survey of Facilities	3 s.h.
OSH 3310	Safety Program Management	3 s.h.
OSH 3520	Industrial Hygiene I	3 s.h.
OSH 3980	Industrial Hygiene II	3 s.h.
OSH 4510	Hazardous Materials I	3 s.h.
	Minor Electives	<u>6 s.h.</u>
	Total	24 s.h.

Required Support Courses:

BIO 2240	Basic Human Physiology*	
	OR	
NSC 1250	Health Problems*	4 s.h.
CHM 1110	General Chemistry I	4 s.h.
CHM 1610	Intro to Life Chemistry	4 s.h.
MTH 1050	AND 1060 Intermediate Algebra and Trigonometry	
	OR	
MTH 1210	Precalculus	5-7 s.h.
PHY 2530	General Physics I	<u>4 s.h.</u>
	Total	21-23 s.h.

* Students with current EMT licenses may apply for alternative credit for this requirement.

Occupational Safety and Health Certificate of Achievement (30 s.h.)

Required Courses:

ENG 1010	College Composition I	3 s.h.
OSH 1020	Standards and Regs.	3 s.h.
OSH 3220	Inspection and Survey of Facilities	3 s.h.
OSH 3310	Safety Program Management	3 s.h.
OSH 3520	Industrial Hygiene I	3 s.h.
OSH 3980	Industrial Hygiene II	3 s.h.
OSH 4510	Hazardous Materials I	3 s.h.
	Electives in major	<u>9 s.h.</u>
	Total	30 s.h.

Environmental Safety and Health Program (ESHP) Certificate of Completion (17 s.h.)

FS 3220	Inspection and Survey of Facilities	3 s.h.
FS 3690	Fire Protection Systems II	3 s.h.
OSH 1020	Standards and Regs.	3 s.h.
OSH 3110	Industrial Safety and Health	3 s.h.
OSH 3210	Construction Safety	2 s.h.
OSH 3980	Industrial Hygiene II	<u>3 s.h.</u>
	Total	17 s.h.

NOTE: Science and mathematics courses taken more than seven years previously may need to be repeated, at the discretion of the program director. *(This policy is general across all College of Science and Mathematics programs.)*

The Faculty

Practitioners as faculty come from organizations such as:

- BASF, Wyandotte
- Bert Schiller and Associates
- J.M Olson Company
- W.H. Healey and Associates

Cooperative Education

Placements have included:

- North American Yazaki
- Toyota
- American Sunroof
- Macomb County
- Tower Automotive