

Madonna University

Emergency Management • College of Science & Mathematics

About the Program

Overview

This interdisciplinary curriculum offers courses that give students employable skills in preparing, mitigating, responding to, and recovering from natural, manmade, and technological incidents. Courses also enable students to identify, integrate, and allocate resources that exist in the non-profit, private, and public sectors with an emphasis on coordinating the above with all levels of governmental response agencies at the local, city, county, and federal levels.

The curriculum includes components of homeland security that will assist the emergency responder in developing a heightened awareness of the identification of the history and origins of threats we currently endure, identification of the types of incidents as they occur, the immediate impacts incidents bear on the communities in which they occur, and recognition and remediation of the aftereffects of incidents as they impact both the communities and the responders.

Emergency Management Major: Bachelor of Science (47 s.h.)

Required Major Core Courses:

EM 1010	Introduction to Fire Protection and Prevention (FS*)	3 s.h.
EM 2010	Foundations of Emergency Management	3 s.h.
EM 3010	Resource Allocation and Planning	3 s.h.
EM 3020	Industrial Espionage and Operations Security	3 s.h.
EM 3310	Management of the Bereavement Process (HSP*)	3 s.h.
EM 3490	Psychology of Traumatic Experiences (PSY*)	1 s.h.
EM 3500	Homeland Security and Terrorism (CJ*)	3 s.h.
EM 4140	Proposal Writing and Grant Administration (GER*)	2 s.h.
EM 4510	Hazardous Materials I (FS/OSH*)	3 s.h.
EM 4520	Hazardous Materials II (FS/OSH*)	3 s.h.
EM 4950	Senior Seminar	2 s.h.
	Core Total	29 s.h.

Required Concentration (see below –

either Fire Science or Occupational Safety and Health) 18 s.h.
Major Total 47 s.h.

Fire Science Concentration

FS 2150	Building Construction (OSH*)	3 s.h.
FS 3500	Hydraulics and Water Supply (OSH)	3 s.h.
FS 3680	Fire Protection Systems I (OSH)	3 s.h.
FS 3690	Fire Protection Systems II (OSH)	3 s.h.
FS 4280	Fire & Arson Investigative Techniques (OSH)	3 s.h.
FS 4400	Tactics and Strategy (OSH)	3 s.h.
	Total	18 s.h.

Occupational Safety and Health Concentration:

OSH 1020	Standards and Regulations	3 s.h.
OSH 3110	Industrial Safety and Health (FS)	3 s.h.
OSH 3220	Inspection and Survey of Facilities (FS)	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.
	Total	18 s.h.

Required Support Courses:

BIO 2240	Basic Human Physiology	4 s.h.
CHM 1110	General Chemistry I	4 s.h.
FOR 1010	Introductory Principles of Forensic Science	3 s.h.
MTH 1050	Intermediate Algebra	
	OR	
MTH 1210	Precalculus	4-5 s.h.
PHY 2530	General Physics I	4 s.h.
	Total	19-20 s.h.

Recommended Electives:

CHM 1610	Introduction to Life Chemistry	4 s.h.
CIS 2380	Introduction to Computers OR	
CSC 2010	Web Fundamentals	3 s.h.
MIS 3440	Information Security	3 s.h.
PHY 2540	General Physics II	4 s.h.
	Total	14 s.h.

Science and mathematics courses taken more than seven years previously may need to be repeated, at the discretion of the program director.

See page 2 for Plans of Study for:

**Certificate of Completion
Certificate of Achievement**

** Course description can be found in this department*



For Admissions Information

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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.

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Emergency Management Certificate of Completion

Required Certificate Courses:

EM 2010	Foundations of Emergency Management	3 s.h.
EM 3010	Resource Allocation and Planning	3 s.h.
EM 3020	Industrial Espionage and Operations Security	3 s.h.
EM 3310	Management of the Bereavement Process (HSP*)	3 s.h.
EM 3490	Psychology of Traumatic Experiences (PSY*)	1 s.h.
EM 3500	Homeland Security and Terrorism (CJ*)	3 s.h.
EM 4140	Proposal Writing and Grant Administration (GER*)	2 s.h.
	Total	18 s.h.

Career Options

The Emergency Management curriculum prepares students for employment in a new career area or for specialization within a current profession, including:

- Fire Fighter
- Police Officer
- City Manager
- City Council Member
- County Board Member
- Planning Director
- Finance Director
- Procurement Director
- Personnel Manager
- Risk Manager
- Emergency Management Director
- Information Technology Specialist
- Public Information Officer
- Emergency Medical Services Staff
- Correctional Officer
- Public Works Director or Staff
- Utility Company Representative (gas, electric, telephone)
- Building and Safety Representative
- Volunteer Agency Representative (Red Cross, Salvation Army, Council of Churches, Ministerial Associations, United Way, etc.)

Emergency Management Certificate of Achievement

Required Certificate Courses:

ENG 1010	College Composition I	3 s.h.
EM 1010	Introduction to Fire Protection and Prevention (FS*)	3 s.h.
EM 2010	Foundations of Emergency Management	3 s.h.
EM 3010	Resource Allocation and Planning	3 s.h.
EM 3020	Industrial Espionage and Operations Security	3 s.h.
EM 3310	Management of the Bereavement Process (HSP*)	3 s.h.
EM 3490	Psychology of Traumatic Experiences (PSY*)	1 s.h.
EM 3500	Homeland Security and Terrorism (CJ*)	3 s.h.
EM 4140	Proposal Writing and Grant Administration (GER*)	2 s.h.
EM 4510	Hazardous Materials I (FS/OSH*)	3 s.h.
EM 4520	Hazardous Materials II (FS/OSH*)	3 s.h.
	Total	30 s.h.

Placement Outlook

The area of Emergency Management is an emerging high-need job market in our post-9/11 and post-Katrina situation. Evolving technology and chemicals pose greater and more complex risks in the event of incidents; weather patterns are changing toward an increase in the severity of storms, tornadoes, and floods; and both international and domestic terrorism continue to be realities.

First responders and emergency managers are in demand in all sectors of our communities. According to the U.S. Department of Labor, demands for these skills are on the rise and will continue to be in demand at a better than average pace through the year 2014. The Michigan Economic Development Corporation is funding a project through The 21st Century Jobs Fund that has \$10 million dollars in grant money available to some 125 existing private sector companies that work in homeland security/ emergency management areas, with the goal to increase the number of companies by 25% within the next four years. (*Crain's Detroit Business*).