

# ENVIRONMENTAL HAZARDS AND EMERGENCY MANAGEMENT



**Emergency Management is the academic discipline that educates and trains on theoretical and practical concepts and issues related to preparedness, planning, and mitigation for disaster-resilient communities. The field of emergency management has shown significant growth and continues to further develop as disasters frequently affect all communities and response and recovery efforts require collaboration and coordination amongst all sectors.**

## DEGREES/CONCENTRATIONS

### BACHELOR OF ARTS IN MULTIDISCIPLINARY STUDIES (B.A.)

Multidisciplinary studies degree is an innovative major centered in the liberal arts and sciences, and cultivates multidisciplinary perspective within the University's established college and departmental structure. With careful guidance and academic advisement, students tailor their major to particular areas of strength and interests. The multidisciplinary studies coordinator directs the program and advocates on behalf of students enrolled in the major.

## CAREER OPPORTUNITIES

Emergency management professionals are employed within different sectors of the government (e.g. local, state and federal) and with various governmental agencies at each level (e.g., departments of emergency management, departments of public health, departments of transportation, departments of public works), non-profit disaster relief organizations, domestic and international nongovernmental organizations, energy sector, private-sector emergency management consulting and information technology among others.

## CORE PROGRAMS

The MDST major with a concentration in environmental hazards and emergency management has two core program tracks:

- **Core Programs 1 (18 credits)**

- ESCI 101 Earth System and Natural Hazards
- OSEH 120 Introduction to Occupational Safety
- EHEM 201 Introduction to Emergency Management
- EHEM 305 Disaster Management and Community Risk Assessment
- EHEM 316 Introduction to Terrorism, WMO, and Homeland Security
- EHEM 319 Emergency Management Planning

- **Core Programs 2 (18 credits)**

- ESCI 107 The Atmosphere
- ESCI 221 Physical Geology
- ESCI 245 Environmental Meteorology
- ESCI 366 Ocean Resources
- ESCI 385 Global Change
- GEOG 295 Geographic Information Systems

- **Capstone Experience (3 credits)**

- EHEM 498: Independent Study or Internship in Emergency Management.



## SELECTED COURSE DESCRIPTION

**Disaster Management and Community Risk Reduction -** Study of current trends of building disaster-resilient and disaster-resistant communities to prevent the size of the devastation from disaster. An examination into prevalent legislation that controls and shapes both building construction and land-use planning, technological advance for building a disaster-resistant community and legal issues of community planning.

**Earth Systems and Natural Hazards -** The scientific understanding of earth system as the causes of natural disasters, such as earthquakes, volcanoes, landslides, hurricanes, tornadoes, floods and tsunamis.

**Introduction to Emergency Management -** An introduction into all aspects of emergency management from the origins through the civil defense era to the present day with a look towards the future of the global aspect of emergency management. Students will learn the basics of emergency management, how to function as an effective emergency manager and how to manage an emergency management agency.

**Introduction to Terrorism, weapons of Mass Destruction and Homeland Security -** An introduction into all aspects of terrorism weapons of mass destruction and homeland security in our modern world. A study of the overall history of terrorism, legislation that oversees emergency management, and various methods for combating terrorism. How to manage an emergency management agency while taking into account modern-age terrorism threats.

## CENTER FOR DISASTER RESEARCH AND EDUCATION (CDRE)

CDRE provides multidisciplinary education, research and internship opportunities, and plays an active role in offering training and community-based partnerships. As an example, CDRE offers all students in the MDST EHEM program an opportunity to receive a FEMA certification in Community Emergency Response Team training. The Center is a member of the Homeland Security Higher Education Consortium, Keystone Emergency Management Association, National Emergency Management Association, Emergency Management Higher Education Consortium and the International Association of Emergency Managers.

## PROGRAM LEARNING OBJECTIVES

- Demonstrate knowledge of the five mission areas of emergency management and the role each one plays in planning and mitigation.
- Apply the theoretical underpinning of emergency management to practice.
- Examine the role terrorism plays in society and how it impacts public policy and decision-making.
- Identify the core requirements of effective planning.
- Recognize the effective methods for decision-making and problem-solving as related to emergency management.
- Exhibit competency in assessing risk susceptibility, resilience and vulnerability within a community or organization.
- Demonstration knowledge of natural hazards and emergency management.
- Interpret and analyze appropriate data and information technology related to natural hazards and emergency management.
- Show an understanding of the global, national, regional and local impact of disaster.

## STUDENT ORGANIZATIONS

**International Association of Emergency Managers (IAEM) -** The mission of IAEM is to serve its members by providing information, networking and professional opportunities, and to advance the emergency management profession. Millersville's Chapter has received the "Student Chapter of the Year" award twice at the national level in 2014 and 2017.

## FACULTY ADVISORS

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