

EMERGENCY MANAGEMENT TECH (ITEM)

ITEM 301 PRINCIPLES OF EMERGENCY MNGT (3 Hours)

This course introduces basic theory of emergency management. It identifies the roles of federal, state, local government, and community in case of emergency. The course also discusses disaster prevention, mitigation, recovery, technology support, and litigation issues.

ITEM 302 INTRO TO INCIDENT COMMAND SYS (3 Hours)

This course covers the emergency management practices used by responders during an emergency. The structure and responsibilities of the Incident Command System, the management of facilities, and typing of resources are covered in this class. The National Incident Management System (NIMS) principles are also included in this course.

ITEM 303 COMMUNITY EMERGENCY RESPN TEAM (3 Hours)

This course provides students with the skills required by Federal Emergency Management Agency (FEMA) to serve as a Community (Citizen) Emergency Response Team (CERT) member within their society. Students will also be required to complete Community Emergency Response Team training, which will provide them with basic skills needed for immediate response in the aftermath of disasters. By working 391 together, CERT members can assist in saving lives and protecting property by using the basic techniques learned from this course.

ITEM 304 INTERNSHIPS (3 Hours)

Prerequisite: ITEM 301, 302, or approval by instructor.

The internship is designed primarily for students who have had little exposure to the field of emergency management. Students will file their placement (with the assistance and approval of the instructor) at national laboratories or DHS's funded COE laboratories to gain hands-on practical experience with a public, private, or nonprofit organization that has significant emergency management responsibilities.

ITEM 311 INTRODUCTION TO NUCLEAR TECH (3 Hours)

This course introduces the students to the fundamental principles of nuclear technology. The topics include nuclear radiology, nuclear power, nuclear safety, radiation protection, radiation detection, nuclear health, and nuclear waste management.

ITEM 401 APP OF EMRGNCY MNGT CMPTR TEC (3 Hours)

The purpose of this course is to develop an in-depth understanding and practical knowledge of the most frequently used software such as WISER, HAZUS, and CAMEO, which were designed by Federal Government agencies. This course will enable students to effectively use a computer in an emergency. The students can apply this skill to analyze, predict, and prevent an emergency incident.

ITEM 402 BASIC GEOG INFO SYS REMOTE SEN (3 Hours)

This course introduces the theory and techniques of Geographic Information System (GIS) and remote sensing and their application to environmental analysis. Topics include the concepts of remote sensing, characteristics of spectromagnetic waves, types of remotely sensed data, sensor types, the theory of photogram metric techniques, and digital image analysis for acquisition of geographical information. Several lab activities involve the following learning the basics of ERDAS imagine, data acquisition through internet search for satellite images, importing datasets, band characteristics, and visual presentation.

ITEM 403 DISASTER MANAGEMENT (3 Hours)

The course explores important functions to be performed before, during, and after disaster strikes. It also identifies the strategies, tools, challenges, and concerns relevant to the emergency manager and others involved in disaster management. The theoretical basis of emergency management will be the central focus of the course, but practical knowledge, skills and abilities relating to planning will also be addressed throughout the semester. Students are expected to think critically about controversial issues and policies pertaining to the emergency and disaster arenas.

ITEM 404 SPECIAL PROJECT (3 Hours)

This course includes the following emergency management concepts: program planning and management, financial planning, and management, managing information, managing people and time, personality types, leadership styles, followership styles, decision-making skills, team-building skills and group dynamics, community-building skills, intergovernmental relationships, negotiating skills, communication skills, emergency management ethics, and professionalism.

ITEM 407 TECHNOLOGY IN EMERGENCY RESPONSE AND MANAGEMENT (3 Hours)

Prerequisite: Junior or Senior Standing

This course aims to increase and improve the knowledge of students in emerging technology. This course focuses on the rapidly advancing technology in data analytics, Internet of Things (IoT), artificial intelligence and machine learning, drones, and its applications, Hazus-Multi-Hazards, and virtual reality. This course includes six modules and laboratory exercises.