

# Homeland Security and Emergency Management (HSEM)

## Courses

### ***HSEM 5510 Critical Issues and Systems Thinking in Homeland Security and Emergency Management: 3 semester hours.***

When threats around us evolve, so should our thinking. This course introduces students to systems thinking principles and applies critical thinking, sensemaking, and mental models to examine complex systems surrounding traditional and emerging issues unique to the homeland security enterprise. Concentration topics include examining complex adaptive systems and sensemaking, grand challenges, systems mapping, and the nonlinear, interconnected subsystems involving threats, and the country's capabilities to prepare for and respond with agility through emergent practice. Among the concepts examined will be critical issues, the interconnectedness of government and civic organizations, leverage points for

### ***HSEM 5520 The Resilience Factor: Building Disaster Resistant Society: 3 semester hours.***

Explores the need to continually expand and improve our response and mitigation capabilities for evolving hazards and threats. This course examines the effectiveness of the response to and management of disasters through recent incidents, case studies, and the application of social science research and a resiliency framework. Issues explored include the challenges of escalating disaster costs, social capital engagement, mitigation and repetitive losses, local and state policies, and shrinking budgets. Rather than an introduction to emergency management tools and techniques, this course leverages innovation and futuristic thinking to employ alternate, community-focused strategies to build resiliency.

### ***HSEM 5530 Analyzing Risk and Protecting Critical Systems: 3 semester hours.***

Focuses on the threats, vulnerabilities, risks, and consequences of critical infrastructure and the interdependencies associated with essential services and systems. Explores risk methodologies to narrow in on the critical nodes of highly connected lifeline sectors and systems. Building upon an emerging risk picture, students develop risk reduction strategies and determine how to allocate resources to decrease the likelihood of critical system failures and lessen the impact of disasters, to maintain essential services for the American public. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

### ***HSEM 5540 Health and Medical Disaster Management: 3 semester hours.***

Explores and evaluates public health emergency systems and capabilities related to crises such as pandemics, chemical and bioterrorism threats, contamination, and mass casualty incidents. Delves into managing the impacts of all hazard incidents for vulnerable populations and those with access and functional needs during response and recovery efforts. Develops analytic skills and strategies to improve public health policies, preparedness, and response systems. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

### ***HSEM 5560 Multidisciplinary Approaches to Homeland Security: 3 semester hours.***

Problems facing homeland security and emergency management leaders touch upon a range of disciplines across the homeland security enterprise. This course examines coordination challenges spanning an ever-changing landscape of partners in the public and private sector. Interdependencies coupled with unique expertise and capabilities brings many partners to the table but does not ensure a smooth interface among all parties. Students unpack systemic coordination challenges to develop effective regional approaches that maximize available resources across disciplines. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

### ***HSEM 5570 Successful HSEM Leadership: 3 semester hours.***

Focuses on the qualities of leadership necessary to direct efforts in the critical arenas of homeland security and emergency management. Incorporates intensive case-studies and scenarios to analyze policies, legal structures, ethical dilemmas facing the homeland security and emergency management professional in a stressful and dynamic work environment. Examines the expectations and efficacy of leadership models, while students leverage their own skills and experience to support the complex adaptive systems needed to address the homeland security challenges beyond the horizon. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

### ***HSEM 5598 Special Topics: 1-6 semester hours.***

The Special Topics course addresses the special needs of industry, enabling students to engage in critical thinking, innovation, and the application of study and research related to current or emerging threats in the environment that are not included in the current program curriculum. D

### ***HSEM 6610 Cyber Threats and Security: 3 semester hours.***

Advances cyber security leadership skills of current homeland security professionals and prepares a new generation of strategic leaders to secure the country's digital infrastructure. Explores the security of networks and digital security threats, offensive and defensive strategies, and system recovery priorities. Examines the use of the Internet in the new age of global terrorism and domestic violent extremists to recruit and organize. Examines the consequences of intentional cyber-attacks in the virtual world with a focus on intelligence issues. Students investigate strategies to detect, to protect critical information against hackers, terrorists, and cyber criminals, and to prioritize the recovery critical systems. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

### ***HSEM 6620 Intelligence, Terrorism, and Domestic Violent Extremism: 3 semester hours.***

Examines emerging terrorist threats to the U.S. and strategies to disrupt terrorist plots. Explores the life cycle of terrorist organizations, extreme acts of violence at public venues, and the role of counterintelligence. Studies the collection, analysis and evaluation of intelligence, the management of the intelligence function, and the influence of intelligence in shaping operational security decisions. Develops an understanding of intelligence tradecraft and the analytic and research skills used in intelligence work. Students analyze a case study of how a terrorist organization has ended, and the issues that impacted its demise to better understand how to counter current and future threats to homeland security. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

***HSEM 6680 Capstone Project Stage 1: 2 semester hours.***

Graduate students must select one of two options (a thesis or a capstone project) to complete the final requirement in the MS degree program. Students who select a capstone project must identify and secure an organizational sponsor to support the project proposal. This could be a current employer or an organization the student identifies through initiative and outreach. Students will work with a faculty advisor and their project sponsor throughout the final 16-week term to provide analyzed research results, a project proposal, or a completed project that meets the needs of the designated partner organization. Specific, evaluated graduate-level activities and/or performances are identified in the course syllabus.

***HSEM 6680A Capstone Project Stage 1: 2 semester hours.***

In this stage, students identify a sponsor organization and point of contact, develop a baseline overview of the current mission, structure, and operating environment of the organization, develop research question(s), and identify the non-linear, dynamic properties and

***HSEM 6680B Capstone Project Stage 2: 2 semester hours.***

In this stage, students research and isolate the root problem, analyze the reasons for the problem, and employ research methodologies to map the properties and consequences of a critical issue, problem, or challenge facing the organization.

***HSEM 6680C Capstone Project Stage 3: 2 semester hours.***

In this stage, students research the selected issue, problem, or challenge and conduct research to provide a comparative analysis of conventional and innovative courses of action, develop criteria for assessments, create a project management plan and key performance indicators, make recommendations and finalize a professionally written project proposal and presentation for their sponsor organization.

***HSEM 6690A Thesis Stage 1: 2 semester hours.***

In this stage, students compose a thesis topic proposal, develop research question(s), formulate a thesis proposal with a nexus to homeland security and emergency management, and identify the University's approval requirements for potential research methods.

***HSEM 6690B Thesis Stage 2: 3 semester hours.***

In this stage, students conduct a literature review, design a research project, identify relevant research theories and conceptual frameworks, select a research methodology and approach, and begin collecting and analyzing data.

***HSEM 6690C Thesis Project Stage 3: 1 semester hour.***

In this stage, students finalize research findings and synthesize them into the final written thesis document. Students will navigate the thesis approval requirements with the guidance of their thesis advisor(s) and thesis advisory committee and defend their thesis at an oral defense presentation.

***HSEM 6698 Special Topics: 1-6 semester hours.***

The Special Topics course addresses the special needs of industry, enabling students to engage in critical thinking, innovation, and the application of study and research related to current or emerging threats in the environment that are not included in the current program curriculum. D