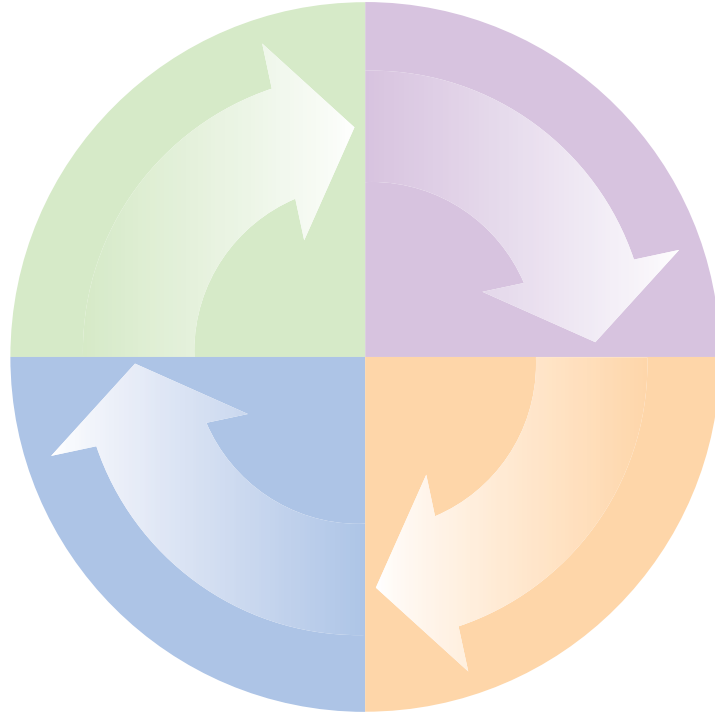


Action Guide for Emergency Management at Institutions of Higher Education



Action Guide for Emergency Management At Institutions of Higher Education



U.S. Department of Education
Office of Safe and Drug-Free Schools
2010

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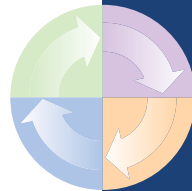
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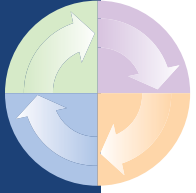
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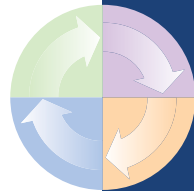
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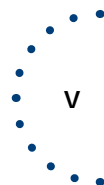
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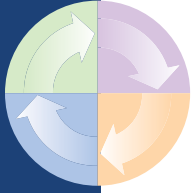
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ABBREVIATIONS

BCP	Business Continuity Plan
CDC	Centers for Disease Control
COOP	Continuity of Operations Plan
CPTED	Crime Prevention Through Environmental Design
DAT	Damage Assessment Team
DHS	U.S. Department of Homeland Security
EOC	Emergency Operations Center
FBI	Federal Bureau of Investigation
FEMA	Federal Emergency Management Agency
<i>FERPA</i>	<i>Family Educational Rights and Privacy Act</i>
<i>HIPAA</i>	<i>Health Insurance Portability and Accountability Act</i>
IACLEA	International Association of Campus Law Enforcement Administrators
ICS	Incident Command System
IHEs	Institutions of Higher Education
MOU	Memorandum of Understanding
NCEF	National Clearinghouse for Educational Facilities
NIC	National Integration Center
NIMS	National Incident Management System
PIO	Public Information Officer

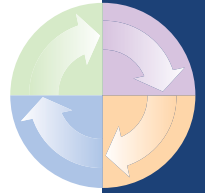




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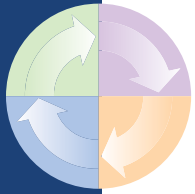
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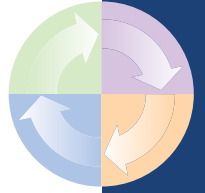
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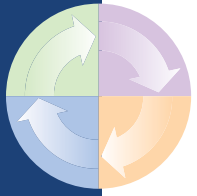
INTRODUCTION

THE NEED FOR EMERGENCY MANAGEMENT ON COLLEGE CAMPUSES

There are over 4,000 two-and four-year public and private institutions of higher education (IHEs) in the United States totaling over 15 million students and several million staff, faculty, and visitors (U.S. Department of Education, National Center for Education Statistics, *Digest of Education Statistics*, 2006). Each of these institutions has a commitment to ensure the safety and general welfare of those on their campuses and to provide appropriate policies, procedures, and strategies to maintain a safe campus. Because of recent violent crimes, natural disasters, and other emergencies or crises, colleges and universities are convening committees and task forces to reexamine or conduct a comprehensive review of policies, procedures, and systems related to campus safety and security. As with many critical areas on the agendas of administrators, campus safety requires building support and conducting a thorough and systematic process to produce a quality plan to prepare for and manage emergencies on campus.

Distinct Characteristics of Emergency Planning at Institutions of Higher Education

IHEs have many challenges in practicing emergency management that are related to the distinctive structure and environment of higher education. College and university campuses often cover large geographic areas, and sometimes even resemble small towns with the full extent of services in their vicinity (i.e., medical centers, sports complexes, residential centers, businesses). The campus population changes from day to day, semester to semester, and year to year. Many IHEs operate complex enterprises in addition to their academic programs. Hospitals, research and development facilities, performing arts venues, athletic complexes, agriculture centers, residential complexes, food services, and transportation systems all present a unique set of circumstances that must be considered when designing emergency management plans. These structural and environmental characteristics pose challenges for access control, monitoring movements, defining boundaries for facilities and grounds, standardizing procedures and decision-making processes, and prioritizing resource allocations.

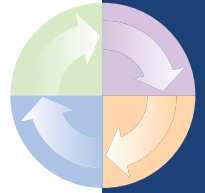


IHE governance is also highly varied, complex, and often widely dispersed. Decentralized organizational structures and academic departments may be located in different buildings and have differing decision-making methods. The nature of higher education institutions, with faculty involvement in the governance process, is much different than the hierarchical structure of corporate entities or governmental agencies. Decision-making in such an environment can be slow, and hinder campus response to a crisis. The need for clear lines of authority and decision-making are all the more important at IHEs. Responsibility for developing, testing, and implementing an emergency management plan should be shared and communicated across all departments and functions.

Most IHEs have open access and often are geographically integrated in the surrounding community. Autonomy is encouraged and fostered for both students and faculty; at any one time, students, faculty, and staff are dispersed around the campus in classrooms, common areas, cafeterias, offices, dormitories, and numerous other facilities.

The population served by IHEs is distinct, as well. Most students are over 18 years of age—the age of majority in most states—and therefore are considered adults capable of making decisions on their own. This can present challenges and opportunities. It creates the need for a different set of roles and responsibilities for students during an emergency event (especially compared to the K–12 population of mostly minors).

Another characteristic of IHEs is that they do not operate under 8 a.m. to 5 p.m. typical business-hour schedules. A college campus is alive and engaged with activity almost around the clock. From the opening of food service operations and recreation facilities in the early morning to evening activities and late night studying in the library, the campus is constantly in motion. Unlike secondary education, most college campuses include residential facilities in which students live throughout the year. Even when classes are not in session these facilities are home to many out-of-state, international, and married students. These additional factors impact how an IHE plans, responds to, and recovers from a campus emergency.



Purpose and Uses of This Action Guide

This *Action Guide for Emergency Management at Higher Education Institutions* has been developed to give higher education institutions a useful resource in the field of emergency management. It is intended for community colleges, four-year colleges and universities, graduate schools, and research institutions associated with higher education entities, both public and private. This action guide may be used in a variety of ways:

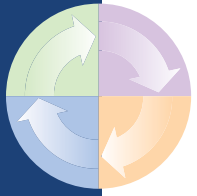
- ▶ As a starting point in researching the topic of emergency management for those needing an overview of the subject;
- ▶ As a resource for an initiative to develop and implement an emergency management plan at a higher education institution; or
- ▶ As a reference and resource for colleges and universities looking to evaluate their emergency management programs to identify potential areas needing enhancement.

Many other resources are referenced in this document that can and should be used in conjunction with the contents of this guide. Specifically, the *Practical Information on Crisis Planning: A Guide for Schools and Communities* published by the U.S. Department of Education (revised January 2007) and *Building a Disaster-Resistant University* published by the Federal Emergency Management Agency, or FEMA, (August 2003) offer companion resources to help in an emergency management initiative. This action guide is not meant to prescribe exactly how emergency management should be practiced; rather, each higher education institution should decide for itself the best way to prepare to meet its own unique set of needs.

Key Principles in Emergency Management

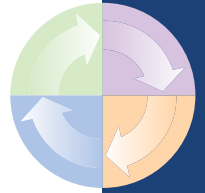
Nine key principles serve as the foundation for the content of this action guide.

- **Effective emergency management begins with senior leadership on campus.** The IHE president, chancellor, or provost must initiate and support emergency management efforts to ensure engagement from the entire campus community. This “champion” administrator will have decision-making power and the authority to devote resources to implementing the initiative and subsequently put into action the emergency management plan. Since budgetary realities may force campus administrators to make decisions within select fiscal parameters, it



is important to have high-level support to provide both political and financial backing to the effort.

- **An IHE emergency management initiative requires partnerships and collaboration.** Every department responsible for creating a safe environment and enhancing campus functions must be involved in planning efforts. IHEs should identify and engage internal and external partners, and ensure that all planning tasks are performed within a collaborative and integrated approach. This means involving a variety of departments and functions across the campus and reaching out to community partners in the public, nonprofit, and private sectors. Partnerships with such community groups as law enforcement, fire safety, homeland security, emergency medical services, health and mental health organizations, media, and volunteer groups are integral to developing and implementing a comprehensive emergency management plan.
- **An IHE emergency management plan must adopt an “all-hazards” approach to account for the full range of hazards that threaten or may threaten the campus.** All-hazards planning is a more efficient and effective way to prepare for emergencies. Rather than managing planning initiatives for a multitude of threat scenarios, all-hazard planning develops capacities and capabilities that are critical to prepare for a full spectrum of emergencies or disasters, including natural hazards and severe weather, biological hazards, and violence and terrorism. As defined by FEMA, all-hazard planning “encourages emergency managers to address all of the hazards that threaten their jurisdiction in a single emergency operations plan, instead of relying on stand-alone plans” (FEMA’s *State and Local Guide SLG 101: Guide for All-Hazards Emergency Operations Planning*; September 1996). An all-hazards plan should be flexible and specific to the campus and its needs.
- **An IHE emergency management plan should use the four phases of emergency management to effectively prepare and respond to emergencies.** Emergency plans at higher education institutions should use the four phases of emergency management as the framework for planning and implementation. Part of the founding principles of comprehensive emergency management when FEMA was created in 1979 is the four phases of emergency management: Prevention-Mitigation, Preparedness, Response, and Recovery. FEMA prescribes “to treat each action as one phase of a comprehensive process, with each phase building on the accomplishments of the preceding one. The overall goal is to minimize the impact caused by an emergency in the jurisdiction” (FEMA’s *State and Local Guide SLG 101: Guide for All-Hazards Emergency Operations Planning*; September 1996).
- **The IHE emergency management plan must be based on a comprehensive design, while also providing for staff, students, faculty, and visitors with special needs.** Every aspect of an emergency plan also should incorporate provisions for vulnerable populations, those of which can have a wide range of needs, including: language barriers, disabilities, or other special conditions. Thus,

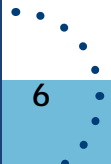
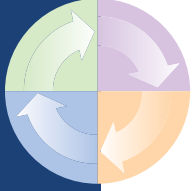


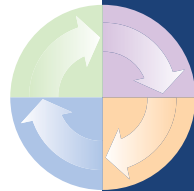
any procedures, products, and protocols created to prevent, prepare, respond, and recover from an emergency also must accommodate people with various levels of cognitive ability, knowledge, physical capabilities and life experience.

- **Campuses should engage in a comprehensive planning process that addresses the particular circumstances and environment of their institution.** A high-quality emergency management plan does not simply duplicate another institution's specific model. Rather, the plan must be based on the unique aspects of the campus, such as the academic programs offered, size, geographic location of the campus, number and type of buildings, such as athletic venues and research labs, availability of campus and community resources, and student demographics.
- **An IHE should conduct trainings based on the institution's prevention and preparedness efforts, prioritized threats, and issues highlighted from assessments.** Routine, multi-hazard training should be conducted with faculty, staff, and other support personnel, focusing on the protocols and procedures in the emergency management plan. Training should be conducted in conjunction with community partners, as well as integrated with responders' expertise, to ensure consistent learning.
- **Higher education institutions should conduct tabletop exercises prior to fully adopting and implementing the emergency management plan.** These exercises should cover a range of scenarios that may occur on the campus, and should be conducted with a variety of partners and stakeholders from the campus and the community. It is important for emergency planners also to evaluate and document lessons learned from the exercise(s) in an after-action review and an after-action report, and to modify the main emergency plan, as needed.
- **After adoption, disseminate information about the plan to students, staff, faculty, community partners, and families.** Dissemination efforts should include the conveyance of certain plan components to specific audiences, such as relaying shelter-in-place procedures to faculty members, or relaying campus evacuation information to the transportation department. General plans and procedures can be posted around campus or displayed on a Web site. Students, staff, faculty, and all of the varied campus support personnel should familiarize themselves with the plan and its components so they are prepared to respond in an emergency.

These key principles of emergency management are reflected throughout the four steps recommended in this action guide for developing and implementing a plan.

Before discussing in-depth each of the four steps in developing and implementing or updating a plan, it is important to cover an organizational framework relevant to the success of any emergency management planning effort: the four phases of emergency management that FEMA created and that is recognized in all relevant sectors.





THE FRAMEWORK: THE FOUR PHASES OF EMERGENCY MANAGEMENT

A comprehensive emergency management plan is based on the framework of the four phases of emergency management: prevention-mitigation, preparedness, response, and recovery. All phases are highly *interconnected*; that is, each phase influences the other three phases. The cycle as a whole is an ongoing process, just as the plan is a dynamic document that requires continuous updating.

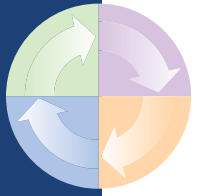
Prevention-Mitigation

The first phase in the emergency management cycle is Prevention-Mitigation.

Prevention is the action colleges and universities take to decrease the likelihood that an event or crisis will occur.

Mitigation is the action colleges and universities take to eliminate or reduce the loss of life and property damage related to an event or crisis, particularly those that cannot be prevented.

The hazards the institution is seeking to prevent, diminish, or mitigate will be defined specifically through a process of hazards identification and risk assessment (see U.S. Department of Education's *A Guide to School Vulnerability Assessments: Key Principles for Safe Schools* available at: <http://rems.ed.gov>). In the assessment, the campus representatives and community partners identify virtually all the hazards that could cause risks and subsequently a crisis. Prevention-Mitigation of hazards is not a new concept for IHEs because each campus historically has been involved in creating safe learning environments. However, in the context of comprehensive emergency management, prevention and mitigation efforts become more structured, formalized, and purposeful. Key steps in Prevention-Mitigation include:



- **Reviewing existing campus and community data.** The first step in the Prevention-Mitigation phase is to obtain such data as: previous community vulnerability assessments (i.e., vulnerability assessments conducted in the past by the institution or surrounding community), facility assessments (i.e., vulnerability assessments conducted on a particular structure or operation), recent community and campus specific crime data (e.g., *Clery* data¹), and weather- or natural hazard-related data, such as flood, tornado, hurricane, or earthquake probabilities.
- **Assessing facilities and grounds.** An assessment of facilities and grounds involves the selection and use of a tool to assess campus vulnerabilities (see *A Guide to Vulnerability Assessments: Key Principles for Safe Schools*, U.S. Department of Education, Office of Safe and Drug-Free Schools, 2008), as well as the application of Crime Prevention through Environmental Design (CPTED) assessments. Improving surveillance capabilities and access controls may mitigate some emergencies. In considering natural disasters that are common in the geographic locality of the campus, structural modifications and enhancements will help minimize damage.
- **Assessing culture and climate.** Prevention of violence, accidents, and harm in colleges and universities is enhanced by nurturing a healthy campus community. The challenge is to foster healthy societal relationships among students and to support the goal of students to feel connected to the institution and the surrounding community. In addition to supporting the learning environment, healthy relationships and connectedness are key hazard-prevention factors in that they make it less likely for violence to occur. High rates of alcohol or other drug use, for example, can bring a host of problems to a campus environment, including the increased likelihood of violence, accidents, or even poisoning or overdose. An assessment of the culture and climate at the institution is often a major aspect of an initiative for making improvements in this area and preventing such incidents from occurring.

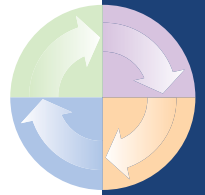
Crime Prevention Through Environmental Design

Crime Prevention through Environmental Design (CPTED) is a tool to assess campus grounds and structures. The three principles of the CPTED program are:

- *Natural surveillance* – the ability to easily see what is occurring in a particular setting;
- *Natural access control* – the ability to restrict who enters or exits an environment; and
- *Territoriality maintenance* – the ability to demonstrate ownership of and respect for property.

More information on CPTED is available at the National Clearinghouse for Educational Facilities at: <http://www.edfacilities.org/rl/cpted.cfm>.

¹ The *Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act*, codified as part of the *Higher Education Act of 1965*, is a federal law that requires colleges and universities to disclose certain timely and annual information about campus crime and security policies. All public and private institutions of postsecondary education participating in federal student aid programs are subject to it. (More information available at: http://www.securityoncampus.org/index.php?option=com_content&view=article&id=271&Itemid=60.)



Preparedness

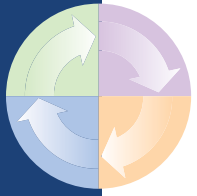
The **Preparedness** phase designs strategies, processes, and protocols to prepare the college or university for potential emergencies. Preparedness activities may include:

- Establishing an incident command system (ICS) consistent with the National Incident Management System (NIMS) for organizing personnel and services to respond in the event of an emergency.
- Developing all-hazard policies, procedures, and protocols with input from such key community partners as law enforcement, medical services, public health, fire services, and mental health.
- Collaborating with community partners to establish mutual aid agreements that will establish formal interdisciplinary, intergovernmental, and interagency relationships among all the community partners and campus departments.
- Negotiating contracts that will provide the campus with resources (e.g., food, transportation, medical services, and volunteers) needed during an emergency.
- Assigning personnel to manage each ICS function and defining lines of succession in emergency plan as to who is in charge when key leaders are not available.

National Incident Management System and the Incident Command System

The National Incident Management System (NIMS) offers a set of concepts, principles, procedures, processes, terminology, and standards that agencies of all different types can utilize in emergency management. The Incident Command System (ICS) is a key component of NIMS and consists of five functional areas: Command, Operations, Planning, Logistics, and Finance/Administration. The incident commander's staff includes public information officer (PIO), safety officer, liaison officer, and campus liaison. It is important that campus administrators understand how campus personnel will perform under the ICS with local partners and agencies when responding to and managing an emergency.

The National Integration Center (NIC) Incident Management Systems Integration Division (<http://www.fema.gov/emergency/nims>) contains interagency tools for establishing partnerships and for adopting NIMS within a jurisdiction or organization. At the FEMA Emergency Management Institute Web site (<http://training.fema.gov>), online courses on NIMS are available, including NIMS: An Introduction (IS-700), National Response Framework (IS-800.B), Introduction to the Incident Command System (IS-100), and ICS for Single Resource and Initial Action Incidents (IS-200).



- Developing a Continuity of Operations Plan (COOP) and Business Continuity Plan (BCP) for all campus operations functions. The COOP plan ensures that the campus has the capability to continue essential functions (e.g., transportation, housing, food service). The BCP identifies systems needed to conduct all administrative functions (e.g., payroll, and communication) so that operations can be continued after the emergency (see Table 1).
- Developing plans to unify students, staff, and faculty with their families.
- Defining protocols and procedures for each type of response strategy, e.g., shelter-in-place, lockdown (if and where appropriate), or evacuation.
- Establishing an emergency notification system using multiple modes of communication to alert persons on campus that an emergency is approaching or occurred.
- Working with the media in the community and campus public relations office to develop a campus emergency communication plan that may include drafting template messages for communicating with the media, students, faculty, staff, community, and families prior to, during, and after an emergency. The campus public information officer (PIO) often coordinates these tasks.
- Coordinating campus emergency management plans with those of state and local agencies to avoid unnecessary duplication.
- Outlining schedules and plans for marketing emergency procedures and training staff, faculty, and students about the emergency plan procedures.
- Working with campus and community mental health professionals to establish a behavioral threat assessment process that involves mental health professionals for evaluating persons who are at-risk of causing harm to themselves or others.

Example of Business Continuity Planning: The University of Michigan

In 2006 the University of Michigan charged all campus deans, directors, and department heads to prepare a Business Continuity Plan (BCP) identifying critical functions, assigning key staff, and preparing contingency plans to keep essential functions operating during emergency operations. All campus units developed plans using a comprehensive guideline available at: <http://www.oseh.umich.edu/buscont/index.html>.

While the guideline focuses primarily on pandemic disease, it is adaptable to all hazards. In addition to a mock scenario to help analyze the impacts of a pandemic on university operations, the guideline provides checklists and templates to assist departments and units in developing specific continuity plans applicable to each unit's mission. Using this information, the units developed specific strategies for recovering business operations and undertook extensive preparation to execute those strategies.

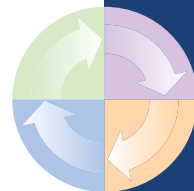
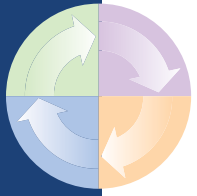


Table 1. Illustrative Key Responsibilities During an Emergency by Organization Entity and Position Within Entity

Entity	Position Within Entity	Responsibilities
Local	<ul style="list-style-type: none"> • Law Enforcement • Fire Department • Emergency Medical Services • Emergency Preparedness Office • Public Works Office • Public Information Officer • City or County Attorney 	<ul style="list-style-type: none"> • Conduct criminal investigations (sometimes, together with campus law enforcement) • Ensure that the perimeter is controlled • Provide personnel, equipment and other resources, and specialized personnel or equipment • Coordinate emergency communications • Coordinate with campus PIO
State and Regional Organizations	<ul style="list-style-type: none"> • National Guard • Civil Support Team • HazMat Personnel • State Emergency Management Agencies • State Patrol • Public Health 	<ul style="list-style-type: none"> • Provide personnel, equipment, supplies, and specialized resources • Conduct field assessments • Determine Declaration of Emergency • Seek federal assistance
Federal Organizations	<ul style="list-style-type: none"> • Federal Bureau of Investigation (FBI) • Federal Emergency Management Agency (FEMA) • Center for Disease Control (CDC) 	<ul style="list-style-type: none"> • Lead criminal investigations • Provide federal recovery assistance • Provide specialized resources
Campus	<ul style="list-style-type: none"> • Campus Executive Leadership • Campus Public Safety Officers • Emergency Management Team • Campus Public Information Officer (PIO) 	<ul style="list-style-type: none"> • Provide leadership on campus during an emergency • Institute the campus emergency management plan • Coordinate and support with partners • Serve as incident commander to establish the incident command system (sometimes, until partners arrive to take over ICS)

Source: Adapted from Homeland Security Planning for Campus Executives workshop, developed by VMC/West Virginia University for DHS/ FEMA under the agency's Training and Education Integration (TEI) Secretariat, available at <http://vmc.wvu.edu/projects.htm>.



- Ensuring that a process is in place for complying with the *Health Insurance Portability and Accountability Act (HIPAA)* and the *Family Educational Rights and Privacy Act (FERPA)* for revealing information about a student or staff member. For additional information on *FERPA* and *HIPAA* restrictions on communication relating to campus safety see *NACUA NOTES on FERPA and Campus Safety* (Vol. 5, No. 4, August 2007) available at: <http://www.nacua.org/documents/ferpa2.pdf>.

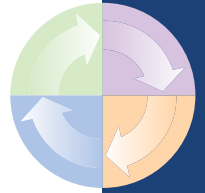
Balancing Student Privacy and School Safety

The U.S. Department of Education offers a brochure *Balancing Student Privacy and School Safety: A Guide to the Family Educational Rights and Privacy Act for Colleges and Universities*. It provides guidance pertaining to *FERPA*, disciplinary records, the *Clery Act*, law enforcement units, disclosure to parents, and other information that will help campus officials make decisions quickly when confronted with issues about privacy and safety. The brochure can be found at: <http://www.ed.gov/policy/gen/guid/fpco/brochures/postsec.pdf>.

Response

Response is taking action to effectively contain and resolve an emergency. Responses to emergencies are enhanced by thorough and effective collaboration and planning during the Prevention-Mitigation and Preparedness phases. During the response phase, campus officials activate the emergency management plan. Responses to emergencies vary greatly depending upon the severity, magnitude, duration, and intensity of the event. This is the phase of emergency management covered most intensely by the press and media, as well. Effective response requires informed decision-making and identification of clear lines of decision authority. Selected Response activities include:

- Activating the Incident Command System;
- Dialoguing with first responders and other community partners (as articulated in memorandums of understanding [MOUs] or other formal agreements) to make informed decisions and deploy resources; and
- Establishing an Emergency Operation Center (EOC).



Emergency Operations Center (EOC)

The EOC serves as a centralized management center for emergency operations. Here, decisions are made by emergency managers based upon information provided by the incident commander and other personnel. The EOC should be located in an area not likely to be involved in an incident (e.g., security department, emergency manager's office, or training center). An alternate EOC should be designated in the event that the primary location is not usable due to emergency consequences. Ideally, the EOC is a dedicated area equipped with communications equipment, reference materials, activity logs, and all the tools necessary to respond quickly and appropriately to an emergency, including:

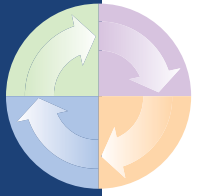
- Communications equipment;
- A copy of the emergency management plan and EOC procedures;
- Blueprints, maps, and status boards;
- A list of EOC personnel and descriptions of their duties;
- Technical information and data for advising responders;
- Building security system information;
- Information and data management capabilities;
- Telephone directories;
- Backup power, communications, and lighting; and
- Emergency supplies.

Source: *FEMA Emergency Management Guide for Business & Industry*, available at: <http://www.fema.gov/business/guide/toc.shtm>).

- Activating communication plans using multiple modalities (e.g., e-mail, text message, phone).
- Determining and executing the appropriate response strategy.
- Accounting for students, faculty, and staff.
- Conducting an after-action report as a tool for modifying and improving the emergency management plan.

Example of Proactive Response: Texas Tech University

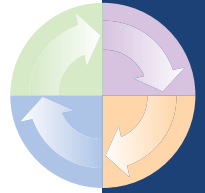
In the year following the tragedy at Virginia Tech, then university president of Texas Tech University (TTU) Jon Whitmore sent students and families a letter. He assured this community that TTU had a plan to respond to a variety of emergencies, and that the safety and security of the campus community was a high priority concern. He discussed recent updates to the TTU campus emergency notification system, which utilizes outdoor sirens, broadcast e-mails, text messaging, and phone calls as well as Web site postings. He invited everyone to view TTU's emergency response Web site to obtain additional information and urged faculty, staff, and students to sign up for emergency information alerts. Because emergency management is an ongoing process at TTU, he was able to reassure students and their families that the university was making a concerted effort to ensure safety and security.



Recovery

The Recovery phase establishes procedures, resources, and policies to assist an institution and its members' return to functioning after an emergency. Recovery is an ongoing process. The type and breadth of recovery activities will vary based on the nature and scope of the emergency. However, the goal of the recovery phase is to restore the learning environment. Planning for Recovery begins in the Preparedness phase, and requires support from campus leaders to ensure that decisions contribute to implementation and resolution of all four components of recovery. All decisions should be made in conjunction with local and perhaps state officials and partners. Recovery includes:

- **Physical and Structural Recovery.** Depending on the scope of the emergency, a key step to recovery can be the creation of a Damage Assessment Team (DAT). This team would likely consist of campus personnel (e.g., safety and security, facility management, risk management, budget office, transportation, food services, technology services, etc.) and community partners. This assessment will evaluate physical and structural damage, assess the availability of housing, transportation, and food services, and determine the degree to which equipment (e.g., computers, lab equipment) is functional. The major goal of the assessment is to determine the extent of the effects of the incident on campus and community physical assets and newly created vulnerabilities. Data from the assessment results will facilitate decision-making about repairs and timelines to resume learning activities.
- **Business Recovery.** IHEs can restore administrative and business function by activating the COOP and BCP plans. The plans also should identify who has the responsibility to cancel or postpone classes or to use alternative locations. Additionally, there should be a succession plan in place for each function identified in the plans, as well as strategies for accepting donations for goods and services following the emergency.
- **Restoration of the Academic-learning Environment.** Restoring the learning environment may involve housing students and conducting classes in off-site locations, implementing online learning, and implementing temporary procedures about assignments, grading, attendance, and tuition and housing payments. Campus administrators must make swift decisions about changes to class schedules and academic calendars and graduation requirements. Moreover, it is important to communicate the decisions and next steps to the media, faculty, staff, students, and families in an expedient fashion. Establishing such communication venues as a Web site or call center to manage inquiries will facilitate the communication process.

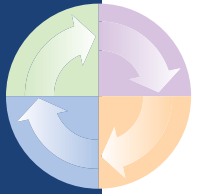


- **Psychological and Emotional Recovery.** It is critical to identify the mental health resources in collaboration with partners to promote psychological and emotional recovery. Through this collaboration students, faculty, and staff will have the opportunity to receive short- and long-term mental health services on and off campus, or obtain referrals for more long-term counseling. As part of the preparedness plan, campus mental health personnel may want to establish a prescreening and approval process for mental health personnel who could help during and after an emergency. In addition to providing mental health services for students, it is important to offer such services to workers who may be cleaning and restoring the physical and structural facilities; faculty; and staff involved in the recovery effort; as well as public safety, medical, and mental health professionals.

Hurricane Katrina and Tulane University: Recovery Set in Motion

On Aug. 29, 2005, Hurricane Katrina caused massive destruction in New Orleans and a broad expanse of the Gulf Coast region. Tulane University, located in the heart of New Orleans, suffered major property damage and losses—estimated at more than \$600 million. University functions were brought to a standstill. Following Hurricane Katrina, Tulane University had to contend with the aftermath of the disaster, an inaccessible city, few functioning technologies, and no operational communication mechanisms. Moreover, the university had to close its doors for the fall semester and spend weeks attempting to locate faculty, staff, and students who had evacuated around the country. The university responded by establishing a Web site, call center, and remote offices to provide regular and accurate updates to the entire campus community. The university president and his staff identified several elements that needed immediate attention, including student housing and food services, parking and transportation, administrative and classroom space, media relations, and financial solvency. He set up a series of task forces with representatives from each department and asked them to develop solutions to the major issues. The university also established a policy that students would receive credit for the semester's courses taken at other universities with a passing grade. An online registration system for employees helped regain lost contact information, alleviating disruption to the payroll system. University staff read blogs to monitor the discussions circulating, including the issues of concern to families, students, and staff, in order to alleviate concerns and facilitate the return of campus community members.

The devastation of Katrina forced the university to undertake a major reorganization, which resulted in the layoff of hundreds of faculty and staff members, elimination of several undergraduate majors, removal of men's and women's sports programs, and significant changes to its school of medicine and other graduate programs. The university swiftly developed a renewal plan, approved by the Board of Tulane on Dec. 8, 2005. For Tulane University, the challenges of emergency management became a way of life and a constant struggle. However, from their experiences in this tragedy, they “gathered once again and are now called to be the architects of and witnesses to the renewal of a great American university and a great American city” (*Tulane University—A Plan for Renewal*, December 2005, available at: <http://renewal.tulane.edu/renewalplan.pdf>).



This section introduced the four phases of emergency management. These four phases provide an organizing framework for the development of an emergency management plan.

The remaining sections of this action guide cover the four recommended steps for developing and implementing a plan:

Step 1: Get Organized

Step 2: Identify Hazards and Conduct a Risk Assessment

Step 3: Develop or Update the Emergency Management Plan

Step 4: Adopt and Implement the Emergency Management Plan

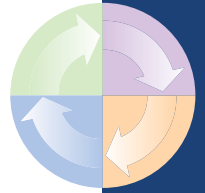
This four-step process can be used in either developing a new plan or updating an existing plan.

Four-step Process for Emergency Management and Implementation

This action guide offers a four-step process² for developing and implementing an emergency management plan at higher education institutions. For each step, the guide identifies a set of tasks that must be covered in order to thoroughly address that step.

Step 1: Get Organized

- Build support by getting institutional commitment and leadership for emergency management work.
- Identify, access, and use available resources, from both inside and outside the institution.
- Formulate a project organizational structure [that consists of an advisory committee, a planning team, a project manager, or other structural components.
- Develop a project work plan that has tasks and milestones.



Step 2: Identify Hazards, Vulnerabilities, and Threats by Conducting a Risk Assessment

- Identify a vulnerability assessment tool, which assists an institution in the ongoing process of identifying and prioritizing risks.
- Identify and profile potential hazards, threats, and vulnerabilities.
- Assess vulnerabilities to potential hazards and the institution's capabilities in responding to an event.
- Assess potential consequences and impacts of various emergency events.
- Identify actions that can be taken to prevent, mitigate, or prepare for hazards and potential hazards.

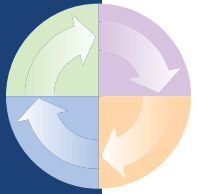
Step 3: Develop or Update the Emergency Management Plan

- Ensure that the plan incorporates the nine key principles in emergency management that contribute to a successful plan.
- Incorporate the results of work done in step 2, including identification of hazards, threats, and vulnerabilities through a risk assessment.
- Address planning elements associated with each of the four phases of emergency management: Prevention and Mitigation, Preparedness, Response, and Recovery.

Step 4: Adopt and Implement the Emergency Management Plan

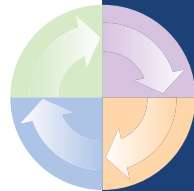
- Subject the draft plan to a thorough review and approval process.
- Communicate and distribute the plan in various forms (e.g., via the campus Web site, on posters in classrooms, in pull-out guides for specific audiences and responders) to a full range of involved parties.
- Test and practice the plan in training sessions, drills, and exercises.
- Implement action items related to prevention, mitigation, and preparedness.

² The planning process outlined in this guide closely parallels the process advocated by the FEMA for both institutions of higher education and communities as a whole. FEMA's label for this process is *mitigation planning*, drawing from the title of the *Disaster Mitigation Act of 2000*. While the FEMA process focuses heavily on natural disasters, it is fully portable in applying to an all-hazards approach.



- Monitor and update the plan on an ongoing and regular basis, with assistance from after-action reports that are compiled following exercises and corrective action reports that are compiled following actual emergencies, and using lessons learned from both.

In the process of planning and implementation, success is achieved by working carefully through each step in the process. An investment of time and energy in the plan development stage (step 3 in the four-step process) will pay dividends at the implementation stage and to an actual emergency when actions become intuitive based on ongoing training and regular exercising. Consider each of these steps and their corollary tasks in more detail.



STEP 1: GET ORGANIZED

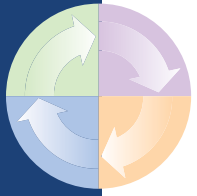
The first step in emergency management planning is to get organized. Tasks to be accomplished in getting organized are:

- Build support and get institutional commitment and leadership for the project.
- Identify, access, and use available resources, both inside and outside the institution.
- Formulate a project organizational structure with an advisory committee, a planning team, a project manager, or other structural components.
- Develop a project work plan with tasking and milestones.

These preparatory tasks are all essential to the success of the planning project.

Build Support, Commitment, and Leadership

Launching an emergency management initiative emerges from a decision to develop a plan or update an existing plan. Implementing and sustaining an emergency management planning initiative requires a considerable investment of institutional time, energy, and resources. It is important to obtain a firm commitment from numerous stakeholders to engage in a substantive planning effort. Thus, the institution's president or provost must assume strong leadership and assign someone to lead the effort who has decision-making power and the authority to use campus resources to manage the planning initiative. It is helpful to issue an administrative directive or resolution that defines the broad objectives of the initiative and describes the general approach to achieve the activities. The objectives should incorporate the guiding principles for emergency management and should rely on the four phases of emergency management.

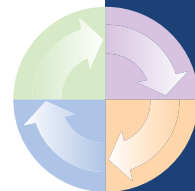


Identify, Access, and Use Available Resources

When beginning the emergency management planning process it is important to identify what assets and resources are available both on campus and in the community. This task is challenging because there are so many groups and individuals to consider. Ideally, a college or university should have an office of senior management, or at a minimum, a staff position, dedicated to emergency management as a primary function. If so, this office or staff position would play a lead role in the planning. Institutions vary greatly with regard to the presence of departments and functions with a direct responsibility for emergency management; for example, many institutions have their own police and fire operations, and others do not. A first order of business is to identify those departments that must play a significant role in preparing for, responding to, and recovering from an emergency.

On the campus, a major challenge is to achieve a cohesive and integrated planning initiative. The process is an opportunity to create linkage and constructive communication across a large number of potential participants. In doing so, the objective is to generate buy-in, participation, and enthusiasm for the initiative. Table 2 provides a list of on-campus resources and their potential contributions. Determining the extent of resources, knowledge, and expertise that each department brings to the initiative will be helpful throughout the process.

Table 2. IHE Emergency Management Planning: Selected Departments and Illustrative Contributions



College or University Department*	Illustrative Department Contributions
Academic Affairs	<ul style="list-style-type: none"> • Develop procedures to communicate with and account for teaching faculty in an emergency situation. • Develop plans to identify alternate facilities where institution activities can be conducted in the event of the destruction, disablement, or denial or lack of access to existing facilities • Identify and prioritize critical support services and systems • Identify and ensure recovery of critical assets
Business Office	<ul style="list-style-type: none"> • Develop the processes and procedures for tracking employees' time and issuing paychecks during disaster operations • Develop procedures for procuring emergency resources for responding to and recovering from emergencies • Develop the process for documenting the financial cost of emergency response and recovery operations • Develop a Business Continuity Plan (BCP)
Central Administration or Designee	<ul style="list-style-type: none"> • Provide resources and leadership support to drive the initiative • Develop procedures for declaring an emergency • Identify alternate administrative facilities • Develop procedures for increasing public information efforts • Develop and coordinate procedures for recruiting volunteers and additional staff • Develop procedures to coordinate and approve volunteers and manage donations during an emergency • Develop a Continuity of Operations Plan (COOP)
Counseling and Mental Health Services	<ul style="list-style-type: none"> • Identify and train appropriate staff to provide developmentally and culturally appropriate mental health services • Train mental health staff on specific interventions • Provide basic training on available resources and common reactions to trauma for all staff (including administrators) • Train teachers and other staff on early warning signs of potentially dangerous individuals • Assemble and train crisis recovery teams • Identify both internal and external partners (consider local mental health agencies who may be able to assist, and develop a structure for support) and develop partnership agreements • Develop template letters (that can be tailored) for alerting students, parents, families, staff, and the community to emergencies
Emergency Medical Services	<ul style="list-style-type: none"> • Develop and coordinate procedures for mobilizing resources needed for significant, longer-term emergencies • Identify sources for mutual aid agreements and assistance
Environmental Health and Safety	<ul style="list-style-type: none"> • Participate in vulnerability and hazard assessments • Review and update office standard operating procedures to align with the campus emergency management plan • Develop procedures for pre-positioning resources and equipment • Review and update processes and procedures for state and federal disaster declaration requests • Develop, review, and update state and federally required environmental emergency response plans, including management procedures for the plans • Coordinate with public safety operations (see next entry) to develop process and procedures for increasing public information • Provide warning system information

* Across varying types of institutions of higher education these departments are key to university functioning.

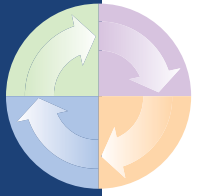


Table 2. (Cont'd)

Facilities and Operations	<ul style="list-style-type: none"> • Participate in vulnerability and hazard assessments • Provide floor plans with room layout, electrical sources, and entrance and exit points for all campus buildings • Develop procedures for pre-positioning resources and equipment • Identify sources for mutual aid agreements and assistance
Food Services	<ul style="list-style-type: none"> • Identify possible threats and mitigation strategies relating to food safety • Develop procedures for providing food to students, staff, faculty, and community partners during a major emergency • Develop mutual aid agreements for obtaining, preparing, and distributing food
Health Services	<ul style="list-style-type: none"> • Develop procedures to determine if there are adequate supplies and equipment to triage for an emergency and to support community health partners • Develop procedures for mobilizing personnel on campus and at external sites • Develop procedures for developing mutual aid agreements • Develop pandemic flu and infectious disease plans • Develop system for disease surveillance and tracking • Coordinate with local and state public health partners
Human Resources	<ul style="list-style-type: none"> • Develop plans to maintain the continuity of payroll, together with the business office (see above), during an emergency • Develop plans to maintain employee benefit services during an emergency • Develop plans to hire or replace staff with temporary employees, if needed • Develop plans to serve as the liaison, or organizer, or both, of volunteer assistance in the event of an emergency • Prepare to execute components of the COOP relating to staffing, including assessing faculty and staff availability, appropriation of personnel, and assisting employees with work-recovery needs (e.g., psychological help, time off for personal needs).
Information Technology	<ul style="list-style-type: none"> • Develop procedures and systems for checking critical information and alert systems to disseminate emergency information via Web site, cell phone, e-mail, and other mechanisms. • Identify IT resources needed to facilitate the emergency operations of all campus departments • Identify need for and sources of emergency communication devices (e.g., ham radios, cell phones) • Develop plans to continue academic programs that significantly use technology for teaching purposes
Legal Counsel	<ul style="list-style-type: none"> • Provide legal counsel on campus liability to key decision makers • Coordinate investigations completed by community partners • Review messages drafted by PIO • Ensure that all campus and community actions are documented with a rationale for the action
Public Information Office (PIO)	<ul style="list-style-type: none"> • Develop procedures for coordinating with all departments to provide unified and factual messages to students, staff, faculty, families, and the media using multiple modalities • Develop pre-agreements with the media concerning debriefings and media holding areas during an emergency • Designate a campus spokesperson

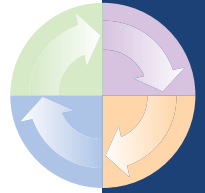
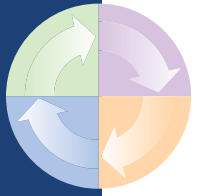


Table 2. (Cont'd)

Public Safety Operations	<ul style="list-style-type: none"> • Develop procedures for reviewing and updating emergency management plan • Develop procedures for facilities and equipment, including testing systems • Develop procedures for mobilizing department of public safety personnel and pre-positioning resources and equipment • Develop a process for managing incidents at the field level using the Incident Command System • Develop a process for communicating with and directing the central dispatch center, including the activation of the Emergency Contact List • Develop procedures to warn threatened elements of the population • Ensure that hazardous material procedures are consistent with the state and local environmental safety hazardous materials plans
Residential Life	<ul style="list-style-type: none"> • Develop procedures to coordinate the need for on-campus housing, temporary shelters, and temporary off-campus housing locations • Develop procedures for mobilizing residential life personnel and pre-positioning resources • Develop an on-call staffing system to ensure staff are available at all times • Develop procedures for identifying resident students in need of emergency evacuation assistance • Develop procedures for the evacuation and temporary shelter accommodations for resident students • Develop procedures for checking residential facilities and equipment
Student Affairs	<ul style="list-style-type: none"> • Develop procedures for checking student affairs facilities and equipment, including those relating to on-campus recreation, student organizations, on-campus employment, community service, and volunteerism • Develop procedures for addressing the needs of students living in Greek housing or off-campus facilities • Develop procedures for pre-positioning resources to maintain functioning of such campus elements as career services and student government • Develop mutual aid agreements and pre-negotiate services for goods and services in the event of an emergency • Ensure that all items under the <i>Americans with Disabilities Act</i> are considered throughout the planning and implementation of the emergency management plan • Ensure that the plan is accessible to students whose primary language is not English • Develop parent or family notification procedures
Transportation	<ul style="list-style-type: none"> • Develop procedures for mobilizing campus wide transportation for an emergency and for maintaining control of traffic from private vehicles • Develop evacuation procedures from various campus locales

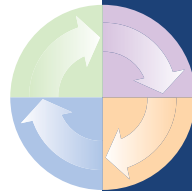
Source: Adapted from the *University of Maryland Emergency Operations Plan* (2006) available at: http://www.umd.edu/emergencypreparedness/umeop/pdfs/sop_dev.pdf [last accessed on Sept. 30, 2008] and the *University of Florida Emergency Management Plan* (2005), available at: <http://www.ehs.ufl.edu/disasterplan/UFEMP.pdf> [last accessed on Sept. 30, 2008.]



Collaboration with community partners should support all planning efforts as well as ensure coordinated response and recovery plans. Outside the college or university system, the planning effort also should involve other community collaborators, such as organizations in government, the nonprofit sector, and the private sector in the community. Consider involving the following:

- Local emergency management offices and planning committees;
- First responders in law enforcement, fire protection, and emergency medical services;
- 911 communications centers;
- Ambulance services;
- City and county government planning agencies, including regional planning agencies;
- City, county, and state government public works departments;
- Special districts with responsibilities for infrastructure, transportation, or flood control;
- Public health agencies;
- Mental health agencies;
- Hospitals;
- State government offices with responsibilities related to emergency management (especially the state office of emergency management and the state hazards mitigation officer);
- FEMA, specifically the regional office;
- U.S. Department of Homeland Security (DHS), regional office;
- Nonprofit organizations related to emergency and human services, such as the American Red Cross, the Salvation Army, and United Way; and
- Media organizations.

The objective in contacting these groups is to generate interest in planning, enlist support and participation, and determine how each stakeholder might best become involved. The magnitude and intensity of the involvement of these organizations will depend on their expertise, time, and resources. In some cases, it will be sufficient for the stakeholder to simply be aware of the planning and know that a new or updated emergency management plan is forthcoming from the IHE. Additionally, these stakeholders will be key participants in all exercises.

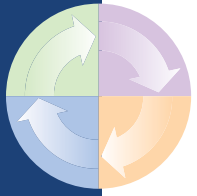


Formulate a Project Organizational Structure

Once the campus and community resources are identified, a structure for implementing the planning initiative is needed. This structure will be different from campus to campus, depending on size, location, and campus facilities (e.g., research facilities), and buildings and events (e.g., athletic, performing arts) organized by the institution. It may be appropriate to form an advisory committee or task force with a representative drawn from the campus as well as each of the community partners to formulate this structure. Another option is to form a core planning team with members having expertise in emergency management and such related disciplines as public safety, risk management, and public communications. Core members should consistently participate in any planning efforts to minimize information inconsistencies and provide for fluid decision-making.

While some individuals will be active participants, other stakeholders' participation in the effort may take the form of submitting information and providing feedback. For example, the core planning team may include the head of each department. The department head and his or her designated staff would collaborate to develop an all-hazards department operations plan that will help with accountability and unity of command. Components of the all-hazards plan should include:

- Data about threat and hazard assessments, department statistics, relevant campus data, and any relevant regulations or guidelines that apply to the department functions.
- A mission statement that outlines the broad objectives and general approach to preparing for, responding to, and recovering from emergencies and hazards.
- Mechanisms to trigger readiness activities and illustrative readiness activities, response activities, extended response activities, and recovery activities.
- An emergency team leader and alternative team leaders who will coordinate the resources and functions of each department during an emergency. Each person must provide contact information, such as campus, cell, and home phone numbers.
- An Emergency Operations Center (EOC) representative who will be at the EOC and serve as a liaison between the departments and the EOC.
- The primary location where emergency operations will be coordinated and an alternative location for backup.



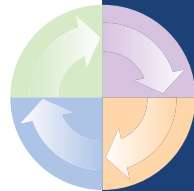
- Procedures that the departments will use to contact personnel and ask them to report to the campus or an alternative location.
- Designation of groups of employees to perform specific functions. Each group should be assigned a group leader and members (two to seven people) and designate a location on campus or alternative location if the campus is not accessible where employees in this group will meet. This component also should include assignment configuration that will list shifts and periods of days on and off.
- Resources, materials, and equipment needed to perform each task before, during, and after the emergency. The plan also should include multiple locations on campus for the materials. The primary location may be the place where similar routine tasks are performed or where materials and equipment are routinely stored.
- Summary of available resources not available on campus, which may necessitate developing mutual aid agreements, memorandums of understanding (MOUs) or pre-emergency contracts for equipment, materials, or services.
- Summary of timelines and milestones for ensuring that all components are fully in place according to a schedule.

For some responsibilities and data collection efforts, there may be a decision to collaborate across departments. For example, it may be more efficient and cost-effective to predetermine whether to have each department conduct hazard and risk assessments or make this a campuswide activity. Regardless of the option selected, one entity should analyze all the data and develop one hazard matrix for the entire campus.

Develop a Work Plan

To formulate a work plan, it is first necessary to consider *scope* and *approach*. A first task might be to gather existing information related to emergency management at the institution, such as:

- Previous risk assessments and campus climate assessments as they pertain to potential hazards and vulnerabilities;
- Incident data, culture and climate data, and community hazard profiles;
- Any existing emergency management plans for the campus; and
- Previous media coverage (such as newspaper articles) of campus emergencies.

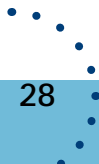
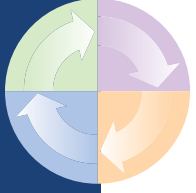


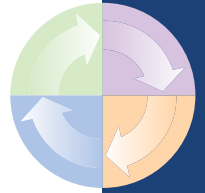
It always helps to know what has gone on before and what is currently in place pertaining to emergency management. It is important to identify what is working well and where there are major gaps in existing plans or procedures.

All assessment and planning efforts should be aligned with federal, state, and local requirements and guidelines (see U.S. Department of Education's *A Guide to School Vulnerability Assessments: Key Principles for Safe Schools* available at: <https://rems.ed.gov>). Campus emergency management teams should obtain key information from resource agencies, such as documentation on the National Incident Management System (NIMS) from the Department of Homeland Security. Information on how to access local agencies can be obtained from FEMA. Leaders also should understand any relevant regulations or guidelines that apply, such as policies related to safety and security for the college or university system. Local emergency planning committees or emergency management agencies can be a good source of information about regulations and requirements promulgated in the local community.

The work plan should identify specific timelines and milestones. Leaders should set a target date for completing a first draft of the plan. The schedule should consider, as well, what needs to happen for the plan to be officially adopted and should allow time for stakeholder review, discussion, and approval processes. If a core planning team is in place, the team should be actively involved in planning—the team as a group may construct a work plan that designates specific tasks, when they will be accomplished, and who has the lead responsibility for getting each task done.

Completing the tasks necessary to get organized requires considerable effort. A concerted effort will help launch the planning work successfully, including a transition to the next major step in the process—identifying hazards and conducting a risk assessment.



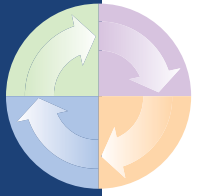


STEP 2: IDENTIFY HAZARDS, VULNERABILITIES, AND THREATS BY CONDUCTING A RISK MANAGEMENT ASSESSMENT

After getting organized, the next step in developing an emergency management plan is to identify potential hazards and conduct a risk assessment. It is important to take an all-hazards approach, considering a full range of risks and threats to the college or university. The hazards identification and risk assessment will prioritize among possible hazards so that a focus can be placed on the top priority hazards, while still addressing lower priority hazards. The assessment should be comprehensive with regard to settings, encompassing the campus, the surrounding neighborhoods, and the greater community.

This step of the process typically involves five distinct tasks:

- ▶ Identify a Vulnerability Assessment tool.
- ▶ Identify and profile potential hazards, threats, and vulnerabilities.
- ▶ Assess vulnerabilities to potential hazards and the institution's capabilities in responding to an event.
- ▶ Assess potential consequences/impacts of various emergency events.
- ▶ Identify actions that can be taken to prevent, mitigate or prepare for hazards and potential hazards.



FEMA Publications on Mitigation Planning

In August 2003, FEMA published *Building a Disaster-Resistant University*, a 42-page technical assistance document with eight worksheets in an appendix. This document contains detailed information on FEMA's mitigation planning methods, including details on estimating losses from a disaster (U.S. Department of Homeland Security, 2003). The contents of *Building a Disaster-Resistant University* are based on a series of FEMA publications on mitigation planning at the state and local levels. There are four publications in this series (publication numbers 386-1 through 4):

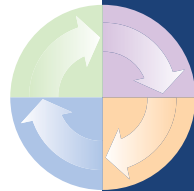
- 386-1: *Getting Started: Building Support for Mitigation Planning*
- 386-2: *Understanding Your Risks: Identifying Hazards and Estimating Losses*
- 386-3: *Developing the Mitigation Plan: Identifying Mitigation Actions and Implementation Strategies*
- 386-4: *Bringing the Plan to Life: Implementing the Hazard Mitigation Plan*

Although the guides are written for communities, many of the steps and procedures represented in these documents are relevant to IHEs and their planning efforts. All of these publications can be found at the FEMA Web site, www.fema.gov. Click on "Forms and Publications" and search for the documents by publication number.

Identify a Vulnerability Assessment Tool

Vulnerability assessment is the ongoing process through which colleges and universities identify potential risks and areas of weakness that could have adverse consequences for institutions and their systems. Vulnerability assessments are an important and vital part of emergency management planning for examining risks, needs, and threats. A vulnerability assessment focuses on an institution's susceptibility to specific threats or hazards and how those weaknesses or threats might be mitigated through emergency management. Vulnerability assessments should be used to inform the prevention-mitigation phases of emergency management and help institutions decide which areas should be priorities of focus.

Initial emergency management planning can be a daunting task for many reasons, not the least of which is learning the numerous terms associated with various phases of the planning. Many other terms are used in relation to assessment, such as needs assessment, threat assessment, risk analysis, safety and security audit, hazard assessment, and facility assessment. Each one of these terms can have its own meaning depending on the context in which it is used. Some of these types of assessments, such as safety and security audits and facilities assessments, focus only on specific aspects or areas of vulnerability. Some examples of the interchangeable terminology follow.

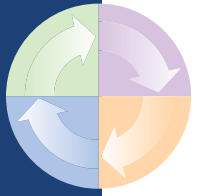


- A *needs assessment*, often used interchangeably with *vulnerability assessment*, commonly refers to an assessment done to identify gaps or areas needing improvement and to determine unmet needs, but not necessarily all vulnerabilities or potential threats.
- A *hazards assessment* focuses on general hazards and determining which hazards an institution might be prone to. A *threat assessment* also focuses on hazards that could potentially threaten the institution, but the term has generally been used in assessing students or outsiders who may post a violent threat to other students within the campus.
- A *risk analysis* usually focuses on the calculation of specific risk levels to determine how vulnerable institutions would be to specific threats or what specific consequences institutions could face in the event of emergency-related crises. Generally a risk analysis is conducted after specific hazards are identified.

The U.S. Department of Education's *Guide to School Vulnerability Assessments: Key Principles for Safe Schools* (2008) encompasses all of these areas of assessment and uses vulnerability assessment as an inclusive term. It also provides several sample assessment tools for use by institutions in an assessment process. Additional resources can be found at the International Association of Campus Law Enforcement Administrators (IACLEA) Campus Preparedness Resource Center (available at: <http://www.iaclea.org/visitors/wmdcpt/cprc/aboutcprc.cfm>)

Identify and Profile Hazards, Threats, and Vulnerabilities

There are many different categories of hazards that could potentially affect higher education institutions. Vulnerability assessments should take into consideration all hazards and threats that could potentially affect the institution instead of limiting assessments to only specific categories of hazards and threats. A hazards assessment and risk analysis often are conducted by a team of participants with expertise in various aspects of the assessment process. First, the team engages in a hazards assessment to identify and prioritize hazards.



Hazards can be described in several categories:

Natural Hazards, Including Severe Weather

Natural hazards refer to what are commonly called natural disasters as well as various types of severe weather. Examples of these types of hazards are:

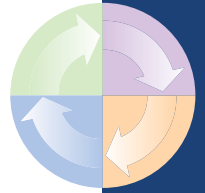
- Earthquakes;
- Tornadoes;
- Lightening;
- Severe wind;
- Hurricanes;
- Floods;
- Wildfires;
- Extreme temperatures (hot or cold);
- Landslides and mudslides;
- Tsunamis;
- Volcanic eruptions; and
- Winter precipitation (ice or snow).

Biological Hazards

Biological hazards that could affect colleges and universities include:

- **Infectious diseases**, such as pandemic influenza, XDR (extensively drug-resistant tuberculosis), *Staphylococcus aureus* (“Staph”), and meningitis;
- **Contaminated food outbreaks**, including salmonella, botulism, and *E. coli*; and
- **Toxic materials present in campus laboratories**, such as chemical, radioactive, or other potentially harmful substances.

Additionally, DHS advises that colleges and universities consider how such existing biological or medical conditions of students as allergies, diabetes, or asthma could affect students in the event of an emergency. For example, because of the stress caused by a crisis, students with asthma may have greater difficulty breathing and may need access to medications or inhalers during a shelter-in-place situation.



Similarly, diabetic students may need access to insulin or snacks during a shelter-in-place scenario. Meeting the special needs of more vulnerable students and staff is a key component in any emergency management plan.

Violence

Threats of violence at colleges and universities involve:

- Weapons on campus and school shootings;
- Fights;
- Criminal or gang violence; and
- Bomb threats.

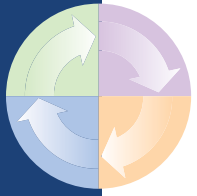
Such factors as crime rates in the area, known gang activity, and drug use in the community and on campus may contribute to the potential for acts of violence on campus.

In situations where a student or faculty may pose a threat to the institution, as manifested through actions, or words, colleges and universities should have available a specific process for early intervention, usually called a *threat assessment*. Threat assessments are used in response to the identification of a person who is at risk of causing harm to self or others. The purpose of the threat assessment is to prevent acts of violence by responding to early warning signs and taking appropriate measures.

Climate and Culture

The climate and culture of the institution can contribute to or even cause hazards. Issues of climate and culture both in the institution and in the community that could influence hazards include:

- Drug usage and trafficking;
- Crimes, both minor and serious;
- Sexual misconduct;
- Suicide;
- Hostile environments (i.e., an environment where individuals or groups of individuals feel unsafe or threatened, such as in instances of racial or religious discrimination);



- Students, personnel, or intruders that may pose a danger to others; and
- Political protests or demonstrations.

Hazards Present in the Community

There are many possible threats associated with the physical community surrounding a campus. Examples are:

- If the campus is located near an industrial plant, this poses a potential hazard to the campus in the event of an explosion or accidental release of toxins.
- If the campus is near an airport or major highway, there is a risk of a plane crash on campus grounds or a nearby vehicle crash that releases hazardous material.
- If railways run through or near campus, accidents involving cargo transportation may pose risks of fire, explosion, or hazardous material release.
- If the campus is near waterways with a major dam, dam failure could pose a risk.
- Nearby prisons could pose a threat if convicts were to escape.

Hazards Related to the Physical Campus Environment

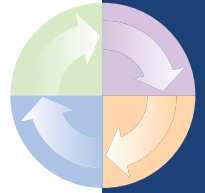
Many hazards or risks associated with hazards within the physical campus environment have potentially serious impacts, including structural-, maintenance-, and grounds-related issues. Examples of such hazards include:

- Building fires;
- Power outages; and
- Structural failures.

These are discussed in greater detail in the following section.

Hazards Created by Terrorism and Military Conflict

Such events as Sept. 11, 2001, have prompted new concern regarding the potential for terrorist threats. Incidents associated with terrorism and subsequent military conflict could occur on campuses. According to FEMA (2006), terrorism-related threats include the following:



- Explosions;
- Bioterrorism or biological warfare threats;
- Chemical threats;
- Nuclear blasts;
- Radiological threats that could be dispersed through a bomb or radiological dispersion device (RDD), or “dirty bomb.”

Certain locale also may be a target for terrorism:

- Military installations;
- Nearby dams;
- Campus facilities conducting animal research;
- Nuclear reactors on campuses; and
- Nearby sites of mass transportation, such as airports, railroads, ports, rail transits, major highways, and bus stations.

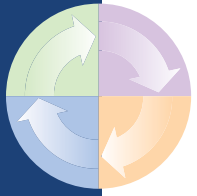
Bioterrorism threats include proliferation of hazardous bacteria, viruses, and related toxins that could be released into the air. Chemical threats could be in the form of toxic vapors, aerosols, liquids, or solids. Nuclear events would similarly involve some sort of bomb or explosion; however, the use of an RDD would be far more likely. In the event of terrorist threats such as these, colleges and universities may need to evaluate how prepared they would be to evacuate or shelter-in-place based on the type and proximity of the threat, and the campus location and structure itself.

Mapping of Area Targeted for Emergency Management

As hazards relevant to the institution are identified, the emergency management team would benefit greatly from the creation of a map supporting emergency management purposes. The base map created ideally would be GIS-based, offering multiple layers of spatial information features and the ability to associate attribute information with those spatial features. Mapping layers might include:

- All buildings and facilities on campus;
- The location of key resources related to emergency management, such as police, fire, and emergency medical services;
- The location of hazardous materials;
- Boundaries related to specific hazards such as floodplain topography and earthquake fault zones; and
- Campus infrastructure showing roads, water lines, power lines, and telecommunications systems.

The scope of the mapping system may extend beyond campus boundaries to include the surrounding community, hazards present in the community, and infrastructure in the community critical to the emergency management program of the college or university.



Hazard Identification: First Steps

A first order of business for the assessment team is to consider the list of potential hazards and begin to identify those that pose the greatest risk to the college or university. In the case of natural disasters, it may be fairly easy to determine those that are of greatest concern. Other hazard categories, however, may take some research and analysis to uncover.

It is likely that the community in which the college or university is located has conducted a hazards assessment that could be helpful to this effort. Talk to emergency management or public safety agencies in the community to find out what has been done in identifying potential hazards. A community-based hazards assessment likely will have considered many of the same hazards that a college or university is concerned with, including natural disasters, community facilities and plants, hazardous materials from industrial and chemical accidents, and susceptibility to terrorism.

After identifying a list of hazards, it is helpful to develop *hazard profiles*. For each type of hazard, answer the related profile questions:

- Frequency of occurrence – How often is it likely to occur?
- Magnitude and potential intensity – How bad could it get?
- Location – Where is it likely to strike?
- Probable geographical extent – How large of an area will be affected?
- Duration – How long could it last?
- Seasonal pattern – What time of year is it more likely to occur?
- Speed of onset – How fast will it occur?
- Availability of warnings – Does a warning system exist and how much warning time will there be?

After completing hazard profiles, a prioritization analysis can be created using a risk matrix. A risk matrix is used to rate probability and severity on a scale of low, medium, or high. Obviously, hazards with high probability and high severity are at the top of the priorities list, and those with low probability and low severity are at the bottom. The hard part may be prioritizing hazards that get medium ratings or those that are high probability-low severity or low probability-high severity. Once an institution has determined which hazards are at the top of the list as well as those that fall in descending order following those at the top, it can prioritize planning, training, and drill efforts to focus on the hazards most likely to occur and most likely to cause significant repercussions to the campus.

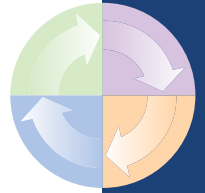


Figure 1. Example of an Emergency Management Risk Matrix

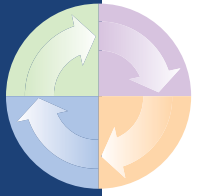
PROBABILITY	HIGH			Hurricane Tornado
	MED		Flood	Violence
	LOW			Hazmat Spill
		LOW	MED	HIGH
		SEVERITY		

Source: Akers, J. & Lassiter, B. *Prevention-Mitigation*. (April 2008). Presentation at the U.S. Department of Education Office of Safe and Drug-Free Schools' *Emergency Management for Schools* Training, New Orleans.

Assess Vulnerabilities and Response Capabilities

The next task for the team is an assessment of vulnerabilities and response capabilities. This entails determining the characteristics of the campus setting that contribute to susceptibility to hazards and the ability of the institution to respond to an event. As discussed previously (see p. 30), a vulnerability assessment identifies areas of weakness that could result in undesirable consequences for the campus or community. For colleges and universities, these areas of weakness could include particular aspects of an institution's structure, procedures, equipment, systems, grounds, and surroundings. As noted earlier, many campuses have open access to buildings and grounds, which increases vulnerability. Some vulnerabilities can be identified through an inspection of buildings and grounds:

- **Structural hazards** refer to actual structural issues within the building, such as weak roofs or trusses, building susceptibility to high winds or floods, unreinforced masonry, and unsecured or unsafe windows.
- **Maintenance-related hazards** could include unstable bookshelves, exposed wiring, wet floors, unsafe practices in science labs or with chemical elements, exposure to asbestos, unsecured appliances and vending machines, malfunction of heating and ventilation systems, blocked exits, and general fire hazards.
- **Grounds hazards** include such issues as unsafe landscaping, poorly maintained outdoor equipment, exposed electrical wires or gas lines, exposed nails, or unsecured storage structures.



A vulnerability assessment also is supported by applying the principles of Crime Prevention through Environmental Design (CPTED):

- Natural surveillance – ability to see what is occurring in a particular setting;
- Natural access control – ability to restrict who enters or exits an environment; and
- Territorial maintenance – ability to demonstrate ownership of and respect for property.

The assessment should identify instances where these features could be improved.

Another key component of vulnerability assessment is perhaps the most challenging—assessing campus culture and climate. Colleges and universities should foster a culture of respect and create an environment that lessens the chance of a violent incident. To do this, institutions pursue a number of strategies, such as creating connections between faculty and students and encouraging an environment of openness and disclosure. There are a number of assessment tools available to colleges and universities to evaluate their culture and climate. These tools can help point to areas that need attention. Obviously, improving culture and climate is an ongoing and long-term endeavor.

Leadership in an Emergency Situation

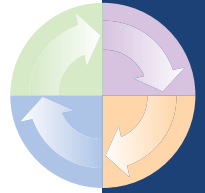
The incident command system, as described earlier (see p. 9), is a standardized, on-scene, all-hazard management structure that allows its users—higher education institutions and first responders—to operate together to meet the demands of emergency situations without encountering barriers in functioning due to jurisdictional boundaries. As FEMA explains in their ICS-100 course, Introduction to the Incident Command System, the basic organization of the incident command system entails several key elements relating to the organization of command.

For one, having a **unified command** establishes a single command structure for all respective agencies to work under (e.g., fire, police, SWAT). It includes common response objectives and strategies and the ability for agency incident commanders to work together in joint decision-making.

Transfer of command also ensures the emergency is handled effectively by always placing control of the situation in the hands of the best-equipped entity. Transfer of command occurs in the following circumstances:

- When a more qualified entity assumes command;
- When the incident changes so as to legally require a change in command;
- When personnel change shifts during a prolonged incident; or
- When the incident response is concluded and control is returned to the home agency (here, the higher education institution).

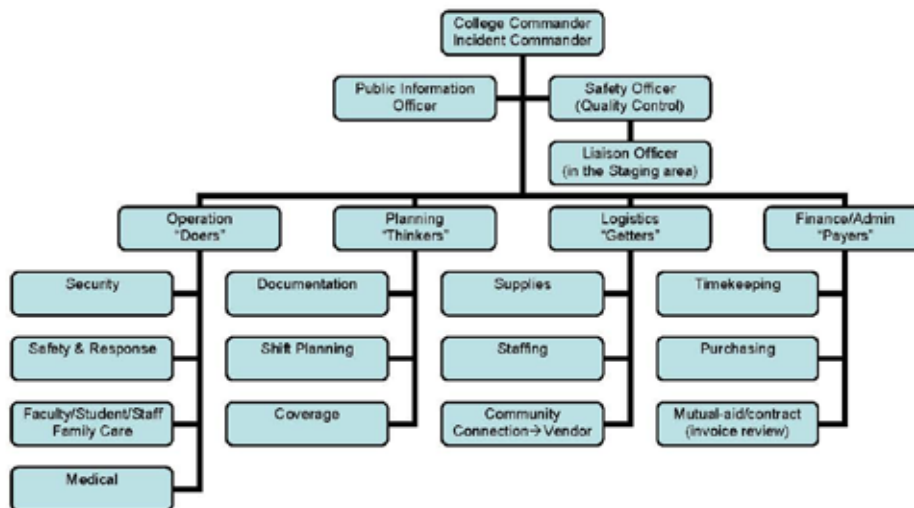
An emergency plan for higher education institutions will entail an incident command system made up of campus personnel, including a designated incident commander. When first responders arrive on campus to respond to an emergency, the higher education incident commander will typically transfer command to the first responders' incident commander, who will operate response efforts from a unified command structure.



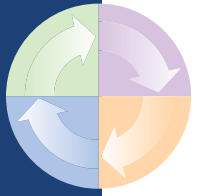
If an emergency were to occur, how prepared would the institution be to respond? A major purpose for conducting an assessment and developing an emergency management plan is to improve preparedness and response capability. Ask key questions that pertain to the Preparedness and Response phases of emergency management:

- How well defined are campus policies and procedures for responding to emergencies?
- How well established are relationships with first responders and other community partners?
- Would it be clear who is in charge when responding to an emergency and how leadership responsibility will be handled as the emergency evolves (see Figure 2.)?

Figure 2. NIMS Organizational Chart, Modified for a College Campus



Source: Chart courtesy of Gallaudet University, adapted from Director Harry Aziz's presentation at ACAP's Crisis Management – Protecting our Students Workshop, Oct. 30, 2007, Baltimore, Md.



Example of NIMS Training: California Systemwide Community Colleges

In 2007, the California College Systems Office began offering systemwide training for all California community college districts and colleges on NIMS and the state Standardized Emergency Management System (SEMS) as a result of funding from the Governor's Office of Homeland Security. Initial training opportunities were held for two types of college personnel: chief executive officers, and emergency and safety personnel. The CEOs received training from the University of West Virginia's VMC/Homeland Security Programs and a SEMS executive course that fulfills one of the requirements for CEO training under NIMS and SEMS, while the emergency and safety personnel received training on college risk assessment planning. Trainings also included time to network with other community college personnel. Chancellor Mark Drummond encouraged all district and college CEOs and emergency and safety personnel to attend a training to ensure their colleges and communities are prepared in the area of emergency management. More information on this effort is available at: <http://emergency.cccco.edu>.

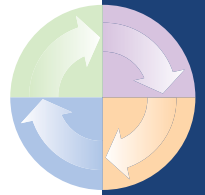
- Is there a defined procedure for communicating with students and others on the campus to alert them of the emergency? Are multiple modes of communication available, including cell phone broadcasts, Web site postings, notification through media outlets, and campus warning alarm systems?
- Are radio systems of campus police or security personnel interoperable with local law enforcement first responders?
- Are there plans in place for communicating with the media?

Thinking through these questions will help determine where the most work in developing an emergency management plan needs to be done.

Assess Potential Consequences and Impacts of Emergency Events

The assessment of consequences measures the range of loss or damage that would occur from the impact of an incident. For colleges and universities, this should include the disruption of the social and physical learning environment—whether short or long term—as well as subsequent psychological impact on the college community. Estimating the potential for death and injury is a critical aspect of consequences assessment. Another key component is estimation of financial losses, such as liability for death or injury, repairs to buildings and grounds, and loss of revenue due to disruption of operations.

To accurately estimate potential losses from an emergency event, it is necessary to take inventory of assets at the institution. For buildings, the inventory should include square footage, construction materials, contents and equipment inside of buildings, uses of the building, and occupancy levels at different points in time during the year. The inventory should address infrastructure as well—utilities, communications systems, and transportation systems. An assets inventory is critical when estimating potential losses from specific events, such as a flood, earthquake, or fire.



The estimation of losses from an emergency event is conventionally organized in broad categories of life, property, and function. For IHEs, losses may be estimated in terms of harm to persons (often measured in numbers of injuries or deaths), financial costs related to buildings and equipment, lost revenues, and other conventional measures. Other measures of loss are particular to the college and university setting—e.g., loss of instructional time, research data, and unique historical artifacts or other valuable assets present on campus.

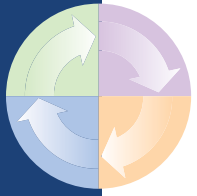
Identifying Prevention, Mitigation, and Preparation Action Items

From the tasks performed by the assessment team, a list of action items should be compiled. These action items could include the following:

- Install access controls for selected buildings and campus areas;
- Make structural improvements to buildings;
- Conduct maintenance projects, such as securing bookshelves and display cases to walls and securing lab equipment;
- Make improvements in landscaping, such as removing objects that might impair visibility through windows to the outside;
- Install systems for communicating with students and others on campus to notify them of an emergency;
- Enhance radio systems to ensure interoperability with local law enforcement;
- Improve security technology, such as security cameras, access control, and alarm systems; and
- Update structural design as applied to new construction or the retrofitting of existing structures.

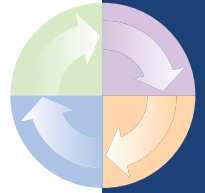
National Clearinghouse for Educational Facilities

Each type of campus facility has unique safety and security needs. The National Clearinghouse for Educational Facilities (NCEF) has created assessment questions and checklists for virtually every type of facility or area on a campus. The Web site also offers articles on prevention and mitigation actions that are appropriate for indoors and outside on campus grounds. The NCEF assessment tools and articles can be found at www.ncef.org.



These action items will eventually be incorporated into the emergency management plan document. The items identified should be subjected to a costs-benefit analysis. Some items can be accomplished at little cost. Others may be very costly, requiring the identification of funding sources and an analysis of budgetary impact. A prioritization of items on the list can be established using criteria of cost, benefits accrued from risk reduction, and estimated frequency of occurrence for the hazard involved.

This section discussed the second step in a four-step process for developing and implementing an emergency management plan at the IHE level. In identifying hazards and conducting a risk assessment, an IHE positions itself to write a plan based on relevant facts and systematic analysis. A thorough effort in identifying hazards and conducting risk assessment makes the job of writing a plan considerably easier and leads to a higher-quality product.



STEP 3: DEVELOPING OR UPDATING AN EMERGENCY MANAGEMENT PLAN

The third step in developing and implementing an emergency management plan is to draft—or review and update—the emergency management plan. Using campus and community data and resources and the departmental plans, an all-hazard, campus-based emergency management plan can be developed, modified, or updated. Much of the work done during assessment (see step 2) will carry over and serve as the basis for the plan.

It is important to remember that the campus and relevant partners should collaborate to develop the comprehensive plan. In addition, certain campus entities may require separate plans of their own, such as an athletic stadium or university hospital. These plans should be stand-alone with respect to that specific entity, but also should be rolled into the campuswide emergency plan.

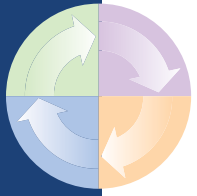
The tasks to be accomplished in this step are:

- ▶ Ensure that the plan incorporates the key principles that will contribute to successful emergency management operations.
- ▶ Consider the results of work done in step 2, including identification of hazards, threats, and vulnerabilities indicated by conducting a risk assessment.
- ▶ Act on planning elements emerging from each of the four phases of emergency management: Prevention-Mitigation, Preparedness, Response, and Recovery.

Incorporate Key Principles

Every plan should incorporate several general components. The plan should:

- Establish points of responsibility consistent with the National Incident Management System (NIMS) (see <http://www.fema.gov/emergency/nims> for more information on NIMS).



- Demonstrate meaningful collaboration with community partners.
- Reflect an all-hazards approach to emergency management.
- Address elements within the boundaries of the four phases of emergency management framework.
- Document approval of the plan by the appropriate authorities.
- Show alignment with federal, state, and local emergency management plans and guidelines.
- Specify accommodation for people with disabilities or other special needs.
- Provide a timeline for maintaining and updating the plan.

National Incident Management System and Higher Education Institutions

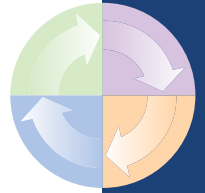
Are colleges and universities required to implement NIMS? Any colleges or universities that receive federal preparedness funds are required to adopt NIMS. In addition, Homeland Security Presidential Directive/HSPD-5 requires all federal agencies to adopt NIMS, and requires state and local jurisdictions to adopt NIMS to receive federal preparedness funding. While colleges and universities do not qualify as first responders, it is similarly recommended that these institutions work with the community on emergency preparedness activities. This includes the collaboration of college and university emergency preparedness personnel with the community's emergency response personnel and the use of NIMS and ICS.

See National Incident Management System at the Board of Regents of the University System of Georgia at: <http://www.usg.edu/publicsafety/resources/index.phtml?res=5>.

Consider Hazards, Threats, and Vulnerabilities Identification From Risk Assessment

When developing the plan, the results of step 2—identification of hazards and risk assessment—should be considered. Step 2 results could include:

- Results on research as to past occurrences of hazards at the college or university, covering all hazard types.
- Profiling and prioritization of hazards resulting from an assessment of frequency and severity of potential hazards.
- Summary information on vulnerabilities of the institution to potential hazards as identified in a facilities and grounds assessment, surveys of campus culture and climate, or other sources; also, conclusions on the ability of the institution to respond to various hazards.
- Information on the potential consequences of hazards likely to occur, including estimates of loss.



These findings should inform all components of an institution's emergency management plan, shaping the strategies, procedures, and practices implemented in each of a plan's four phases of emergency management.

Address the Four Phases of Emergency Management

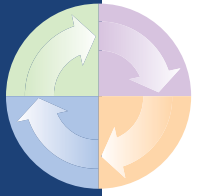
Next, the plan should include a section on elements related to each of the four phases of emergency management, as earlier described. Building on the risk assessment, the plan should describe the decisions, activities, and programs that pertain to **Prevention-Mitigation** of emergencies, addressing such questions as:

- What actions have been taken and will be taken to prevent campus violence?
- What actions have been taken and will be taken to mitigate the impacts of an unavoidable natural disaster?
- Who is responsible and involved in crisis prevention and mitigation at the college or university? How are community partners involved in this?
- What training and practice has been conducted or will be conducted to support prevention and mitigation activities?

To address **Preparedness**, the plan should adopt and endorse the incident command system and acknowledge how ICS will be applied during a crisis. To the extent this can be done ahead of time, specific roles and responsibilities should be assigned to individuals or position types in the institutional system. If possible, the plan should describe how coordination with community partners will take place and what roles community partners will play in different types of emergencies. If MOUs have been developed in this regard, these MOUs can be incorporated into the plan document.

Example of Coordinated Response: Stanford University Emergency Event Classification System

The Stanford University Campus Emergency Plan calls for triaging an emergency in a three-level classification system. Level 1 is a minor incident that is quickly resolved with internal resources or limited help. Level 2 is a more significant emergency that impacts critical infrastructure, a building, or multiple buildings and that may potentially affect life safety or mission-critical functions. For level 2, the emergency plan is activated, and an operational subset of a larger emergency management team, the Situation Triage and Assessment Team (STAT), determines the magnitude of the emergency and coordinates its resolution or, if the emergency continues to develop, activates level 3 response. Level 3 is a disaster that involves the entire campus and surrounding community. At Level 3, the emergency plan is activated, and the entire emergency management organization across the campus mobilizes.



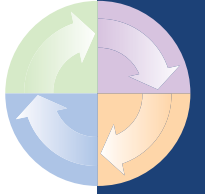
Other factors to consider in **Preparedness**:

- Articulate policies, protocols, and guidelines in the plan that directly prepare the college or university for an emergency. Examples include guidelines for when evacuation or a shelter-in-place response should be invoked, what emergency supplies need to be available, where building floor plans are to be maintained and made available, and how transportation-related issues will be handled. If contracts have been negotiated to provide supplies or transportation in an emergency, these should be identified in the plan.
- Incorporate a communications plan—one that covers communications with the campus community, the surrounding community, the media, parents and families of students, and other stakeholders.
- Outline the training and practice to be conducted. This should include a full range of training and drills, from simple orientation to full-scale simulation drills. Training and practice requirements vary greatly by role and position within the college or university. It takes some work, but it is important to think through and specify a training plan for each type of position.

If a thorough job has been done in addressing **Preparedness** in the plan, the job of addressing the Response phase will be relatively straightforward. In the **Response** section, the plan could:

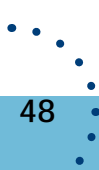
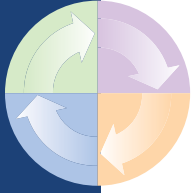
- Articulate specifically *how* mobilization and activation of the plans and protocols—those that pertain to the incident command system and communications, for example—will take place.
- Articulate distinct criteria for activating an Emergency Operations Center (EOC) in response to a crisis of moderate or severe intensity. Activation of the EOC is often accompanied by designation of a particular individual or position as incident commander.
- Specify how documentation of the event will occur and who is responsible for doing this. This documentation is necessary for after-event debriefing session. The debriefing is also important for reviewing with the involved emergency responders both what went right and what went wrong.

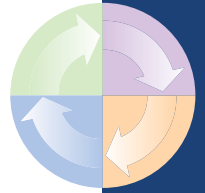
In the plan, all the components of the **Recovery** phase should be addressed—physical and structural recovery, business and administrative continuity, resumption of academic learning, and emotional and mental recovery of those involved. The plan might discuss:



- Conducting a physical and structural damage assessment and making decisions about building closures. The plan should articulate guidelines for decisions for both closures and reopenings.
- Documenting procedures for how physical and structural repairs are to be initiated.
- Drafting a continuity of operations plan (COOP) that describes how to handle payroll and other key aspects of doing business in the college or university.
- Designing guidelines for how resumption of learning activities will be accomplished. Will there need to be alternative sites for parts of or the institution's entire learning program? Flexibility and innovation may be the keys here.
- Recognizing that the emotional and mental health of students, faculty, staff, or other involved parties is a paramount concern. Post-traumatic stress disorder (PTSD) is a serious health concern. The early stages of Recovery are the best opportunity to mitigate the impacts of this. Resources for mental health counseling at the institution and in the surrounding community should be identified ahead of time.
- Anticipating certain practical matters that could become logistical issues, for example, procedures for receiving donations and procedures for screening volunteers to help with recovery efforts.

Drafting an emergency management plan is step 3 in the four-step process. Completing a draft of the plan is a major milestone in planning, but there is more work to be done. In step 4, the plan enters the phase of implementation, monitoring, and updating.





STEP 4: ADOPTING AND IMPLEMENTING AN EMERGENCY MANAGEMENT PLAN

Once an emergency management plan has been drafted, attention can shift to getting the plan adopted and implemented. Plans need to be dynamic and adaptable, not documents that sit on a shelf and are never used or consulted. How does implementation happen? The tasks in this final step of the process are:

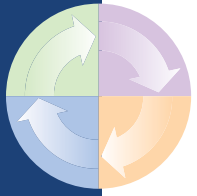
- ▶ Subject the draft plan to a thorough review and approval process.
- ▶ Communicate and distribute the plan in various forms to a full range of involved parties.
- ▶ Test and practice the plan in training sessions, drills, and exercises.
- ▶ Implement the action items outlined related to prevention, mitigation, and preparedness.
- ▶ Monitor and update the plan on an ongoing and regular basis, with assistance from after-action reports following exercises and corrective action reports following actual emergencies, and using lessons learned.

Review and Adopt the Plan

Early in the planning process, provision should have been made for review and approval of the plan document. Review and approval processes are an opportunity to communicate the contents of the plan to planning committee team members and community partners, improve upon it by incorporating review feedback, and build support for the plan with governing boards and senior administrative officials.

The campus emergency management committee, advisory board, or task force should review all documentation in collaboration with community partners. This review serves multiple purposes:

- Ensure that campus plans are aligned with and integrated into local, state, and federal law enforcement and emergency management guidelines and policies;



- Identify and resolve any inconsistencies or overlaps among departmental actions;
- Ensure that all responsibilities and procedures are consistent with NIMS and ICS functions; and
- Ensure that the campus is not subject to any legal liability.

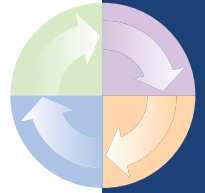
After this review, the emergency management plan should be finalized, modified, or updated on a regular basis.

Of course, approval processes vary depending upon the structure and policies of the institution. Whatever is required, the plan should receive a formal approval and become an official policy document for the institution.

The adoption of the plan also can reflect the endorsement of several stakeholders. In addition to the approval of a chancellor or president and a governing board, endorsements can be sought from the business and administrative departments of the institution, from local emergency management agencies, local public safety agencies, and local political jurisdictions. This is also an opportunity to include student groups, for example, by obtaining an endorsement from the student government body.

Communicate and Distribute the Plan

The emergency management plan must be disseminated, communicated, and marketed to a variety of involved parties and stakeholders, including faculty, staff, students, parents, community partners, and the media. Each distinct stakeholder will receive a different part of the emergency plan—only the component most relevant to their respective roles in emergencies. For example, food service workers should receive information about food safety and infectious diseases. For maintenance and custodial staff, the emphasis may be on floor plans about campus buildings and the importance of regularly updating the floor plans and having the plans accessible in various formats (e.g., paper, electronic copies). All entities should know that a complete plan exists, but that for security reasons, the details of the master plan are not publicized. Few stakeholders will receive the complete plan.



Developing a marketing and dissemination plan of the various components will involve collaboration among campus administration, department heads, the public information officer, student affairs, community partners, and the media. Each stakeholder may require a different type of marketing strategy and a variety of communication modalities.

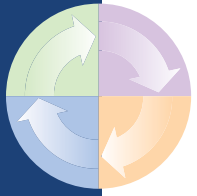
It is likely the full plan will be a large document organized in a notebook or posted on a secure campus Web site. For students and families, the campus Web site is the most effective communication mechanism. Faculty and staff may want to access publicly viewable parts of the plan via an Intranet Web site. Summary components tailored to stakeholders' interests and perspectives also can be presented in laminated one-page documents able to be posted and readily accessible for periodic review. Quick reference guides, or "pocket guides," may be an important format for communicating the essential components of the plan and making its contents more accessible during an emergency event.

Partnerships with the media should be strategic and ongoing. Developing a media communication plan with various media outlets will result in a collaborative effort to disseminate timely and accurate information to the public. The media can be sent press releases about the emergency plan and any exercises that the campus may conduct. Asking media outlets to be active participants in exercises will emphasize the importance of a strong working relationship between the campus and media.

Test and Practice the Plan

Higher education institutions have come to expect the unexpected. The more the plan is practiced and people are trained on the plan, the better the campus responds to emergencies in a comprehensive and effective manner. The ability to do this comes from practice. Exercises are an effective way to identify gaps and weaknesses in the plan and to train students, staff, faculty, and campus administrators in the emergency management procedures. All practicing and training must be done in conjunction with relevant community partners and should focus on the key procedures and strategies outlined in the plan. There are five types of exercises; each requires different levels of planning, time, people involved, and resources:

- **Orientation meetings** will increase awareness among all stakeholders about why and how the plan was developed and provide an overview of the plan's contents. These meetings should include campus administration, department heads, the public information officer, student affairs, community partners, first responders, and the media.



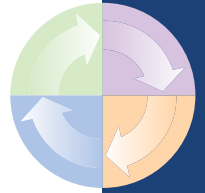
- **Tabletop exercises** are discussions about a scenario and how the campus or a department will prepare for, respond to, or recover from an emergency. Participants, from faculty and staff to department heads, campus administrators, and emergency planners, discuss potential challenges, and identify solutions.
- **Drills** involve one or only a few community partners (e.g., law enforcement, fire) and relevant campus staff that use the actual campus grounds and buildings to drill on how to respond to a scenario.
- **Functional exercises** are similar to drills but will likely involve multiple partners and campus staff. Participants react to realistic simulated events (e.g., a bomb in a residence hall and an intruder with a gun in a classroom). Participants implement the plan and procedures using the Incident Command System (ICS) protocol.
- **Full-scale exercises** are the most time-consuming activity in the exercise continuum and are a multiagency, multi-jurisdiction effort in which all resources are deployed. This type of exercise tests collaboration among the agencies and participants, public information systems, communications systems, and equipment. An EOC is established, and the ICS is activated.

What Is a Tabletop Exercise?

Tabletop exercises analyze an emergency event in an informal, stress-free environment. They provide participants with an emergency scenario to analyze and increase their awareness of the roles and responsibilities of individuals who need to respond, stabilize, terminate, and help others recover from emergencies. They are designed to prompt a constructive discussion about existing emergency response plans as participants identify, investigate, and resolve issues. (“Emergency Exercises: An Effective Way to Validate School Safety Plans,” *ERCM Express Newsletter*, Vol.2, Issue 3, 2006)

For example, a tabletop exercise might bring together campus emergency planners and local first responders to discuss planning and response efforts to any number of emergencies that might occur on campus, including an active shooter or a pandemic outbreak. Together, the institution and their partners review preventive abilities, preparedness for such a situation, and capacities for responding and recovering from the emergency to determine areas for improvement and possible revisions to the institution’s emergency plan.

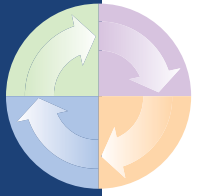
Before making a decision about which type of exercise to facilitate, a higher education institution should consider varying factors, including the amount of time and resources and collaborative support required to execute the activity balanced against the outcome of the experience. For example, while a tabletop exercise may be cheaper and less time-consuming to run, a full-scale exercise provides a more realistic context for the simulated response to an emergency situation, thus providing more constructive feedback to implement into plans.



To successfully execute any type of exercise, consider the following:

- Involve students, faculty, and staff in the exercise to provide a different perspective about the plan.
- Communicate information in advance to avoid panic and concern.
- Develop and practice a wide range of scenarios, based on the risk, threat, and hazard assessments of the campus.
 - Identify or try to identify the most likely event(s) the campus might encounter by consulting risk assessment data.
 - Include a variety of response procedures.
 - Practice and train under different conditions (e.g., time of day, weather, points in the academic calendar, and various campus events).
- Be consistent with common emergency management terminology, such as ICS.
- Debrief after each exercise and develop an after-action report. The report should evaluate and document results, identify lessons learned, and discuss how the emergency management plan and procedures will be modified, if needed. Designation of responsibility for modifying the plan should be specified.

It is important to remember that the emergency management plan is a dynamic document and should be practiced, modified, and updated on a yearly basis. The emergency management plan should include timelines for updating and should describe how campus staff will ensure that the plan aligns with current best practices for emergency management on campuses.



Emergency Management Plans of Institutions of Higher Education: Site-specific Documents

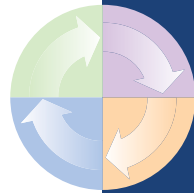
As mentioned earlier, there is no template or model emergency management plan that will suit every higher education institution. A strong emergency plan addresses the four phases of emergency management, defines key issues and vulnerabilities, capitalizes on institutional and community resources, and describes the roles and responsibilities of designated school officials as they integrate with community agencies. Plans should be developed based upon site-specific issues and validated through a number of collaborative exercises: site assessments, needs assessments (see page 31), inventories, meetings, and emergency exercises, including drills and tabletops.

The broad array of personnel and providers; the range of available resources; the scope and type of facilities, equipment, and structures; and the vast diversity in geographical, cultural, and social climates of an institution invariably will make plans very different from one locale to the next. As such, the U.S. Department of Education's Office of Safe and Drug-Free Schools advocates that IHEs engage in a thorough and inclusive emergency plan development process, as opposed to adapting or tailoring a preexisting plan from another institution. Only an institution that has undergone all of the aforementioned steps can know what is necessary to include in their individualized emergency plan. In addition, a plan is not only unique but also private to an institution. That is, a security interest exists in keeping aspects of an emergency management plans protected from public access.

Lest sharing of existing or sample plans be construed as prescriptive, no links or excerpts from sample or existing higher education institution emergency management plans are provided within this section of the document. However, valuable lessons from the field of emergency management relating to IHEs are eminently appropriate for distribution. In spring of 2008, the U.S. Department of Education's Office of Safe and Drug-Free Schools, in partnership with Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA), launched the Emergency Management for Higher Education grant program to support emergency preparedness planning for higher education institutions. In the future, important lessons learned from the subsidized efforts of these institutions will likely be shared with the field to supplement this guide and elucidate recommendations and key practices.

Implement Emergency Management Plan Action Items

As the emergency management plan was developed, a number of action items were identified, many related to prevention, mitigation, and preparedness. The risk assessment process identified areas of weakness with respect to vulnerabilities and response capabilities, coupled with specific action items for improvement in these areas. In the implementation phase, these action items are addressed one-by-one. Some may require approval and scheduling through capital improvement programs, maintenance programs, or other established systems. Some items will require the identification of funding sources and inclusion in budgets for the organization. For all items, points of responsibility and a specific schedule for implementation should be identified.



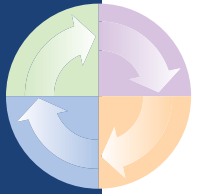
In many college and university systems, emergency management does not have a distinct or separate program budget. Institutions may want to establish a separate budget for emergency management as a means of emphasizing its support of emergency management objectives and facilitating the achievement of those objectives. A separate budget is one way to clarify what resources are needed for the emergency management program and sustain a level of commitment to the program over time.

Another type of action item in emergency management is the implementation of programs related to prevention and mitigation of hazards. For example, the institution may determine that it needs to conduct a campus culture and climate assessment (see page 33) and follow up with programs aimed at reducing the risk of violence on campus. The institution may not have a thorough threat assessment process in place in which case the development of such a process becomes a clear action item.

Monitor and Update the Plan

There are several ways to keep an emergency management plan fresh and subject to continuous improvement. Every time a training session or drill is conducted, there is an opportunity to identify weaknesses in the plan—things that need to be changed or added. Every time there is an actual emergency, be it minor or major, there is an opportunity to improve the plan based upon an after-action debriefing. After-action reports that follow exercises and corrective action reports that follow actual emergencies can provide important insights for plan improvements based on lessons learned. Over time, it is possible to identify more effective ways to prevent and mitigate emergencies, better ways to prepare for and respond to emergencies, and better ways to recover from them. Certainly, problems that surface in responding to an emergency will lead directly to ways to improve preparation. All of these improvements should be reflected in updates to the emergency management plan.

Suggestions for improvement can come from many sources. Emergency first responders in the local community are a great resource in this regard. As conditions in the community change, the plan may need to adapt. As the profession of emergency management evolves, new ideas and practices will come to light that can lead to plan updates. Suggestions for improvement also can come from faculty, staff, and others who are involved in training sessions and drills. Emergency management is everyone's concern.



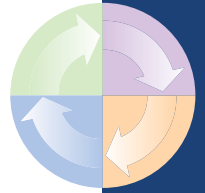
After-action Reporting: Part of the Homeland Security Exercise and Evaluation Program

FEMA's Homeland Security Exercise and Evaluation Program (HSEEP) provides standardized policy, methodology, and terminology for exercise design, development, conduct, evaluation, and improvement planning. HSEEP recommends four performance requirements:

1. Conducting an annual training and exercise plan workshop and developing and maintaining a Multi-Year Training and Exercise Plan.
2. Planning and conducting exercises in accordance with the guidelines set forth in HSEEP, vols. I-III.
3. Developing and submitting a properly formatted After-Action Report/Improvement Plan (AAR/IP). The format for the AAR/IP is found in HSEEP, vol. III.
4. Tracking and implementing corrective actions identified in the AAR/IP.

After-action report templates, along with other information on conducting and evaluating drills and exercises, are available online at FEMA's HSEEP Web site at: https://hseep.dhs.gov/pages/1001_HSEEP7.aspx.

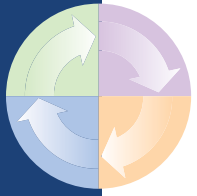
As a general rule, the emergency management plan should undergo a relatively thorough review on an annual basis. It may be necessary to update the risk assessment work in the original plan and incorporate new information or changing conditions. As with all planning and implementation initiatives, there is a danger that enthusiasm will wane as time passes. An annual review and update process is a way to combat this problem and renew enthusiasm for a vigorous emergency management program. Another tactic for sustaining interest is to publicize the successes and accomplishments of the program to campus and community members, such as the completion of building structural improvements or the launching of an improved communications and notification system on campus.



CONCLUSION

This action guide has offered many suggestions for developing and implementing an emergency management plan for institutions of higher education. The plan should address all four phases of emergency management—Prevention-Mitigation, Preparation, Response, and Recovery. It should take an all-hazards approach, which means not only should it consider a full range of potential hazards, but it should recognize as well that there are commonalities across hazard types in practicing emergency management throughout the four phases. Leadership support within the institution is critical to the success of an emergency management planning effort. As noted, colleges and universities present unique characteristics relevant to emergency management. For these reasons, emergency management planning at each institution must be individualized and take into account the circumstances and characteristics at each specific campus. Also, as noted, a collaborative approach building partnerships both inside and outside the institutional system is a key success factor in emergency management planning.

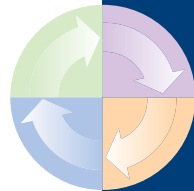
Colleges and universities are places of learning. It is only appropriate that a spirit of learning and information sharing should be reflected in the emergency management planning process. Recent events are keen reminders of the need to be ready in the event that immediate activation of a comprehensive campuswide emergency plan with procedures for coordinating responses and recovery activities, regardless of the emergency, is warranted. All institutions of higher education undoubtedly see their obligations in this critical endeavor, and it is hoped that this guide provides helpful information towards improving and strengthening the broader field of emergency management for higher education.



FEMA's Emergency Management Higher Education Project Principles to Guide Emergency Management Plan Development

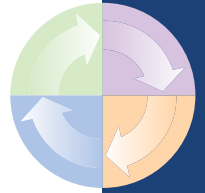
1. Comprehensive—emergency managers consider and take into account all hazards, all phases, all stakeholders, and all impacts relevant to disasters.
2. Progressive—emergency managers anticipate future disasters and take preventive and preparatory measures to build disaster-resistant and disaster-resilient communities.
3. Risk-driven—emergency managers use sound risk management principles (hazard identification, risk analysis, and impact analysis) in assigning priorities and resources.
4. Integrated—emergency managers ensure unity of effort among all levels of government and all elements of a community.
5. Collaborative—emergency managers create and sustain broad and sincere relationships among individuals and organizations to encourage trust, advocate a team atmosphere, build consensus, and facilitate communication.
6. Coordinated—emergency managers synchronize the activities of all relevant stakeholders to achieve a common purpose.
7. Flexible—emergency managers use creative and innovative approaches in solving disaster challenges.
8. Professional—emergency managers value a science and knowledge-based approach based on education, training, experience, ethical practice, public stewardship, and continuous improvement.

More information on these principles and the Higher Education Project is available at FEMA's Emergency Management Institute at: <http://training.fema.gov/EMIWeb/edu/emprinciples.asp>.



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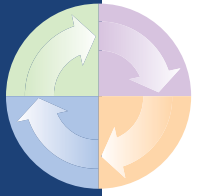
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