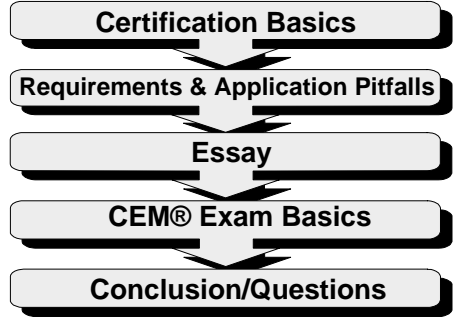


# IAEM's CEM 101

## Basic Training

USA Student Region

## USA Region CEM/AEM Program Outline



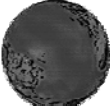
# CEM Exam Basics

## CEM® EXAM Basics

- 100 Questions
- 60% - 80% Core Questions
- 20% - 40% Country-Specific Questions
- 75% to Pass
- Pass Exam BEFORE or AFTER Packet Submission

	<b>NFPA 1600 Standards</b>
	<ul style="list-style-type: none"> <li>■ Laws and Authorities</li> <li>■ Hazard ID, Risk Assessment, and Impact Analysis</li> <li>■ Mitigation</li> <li>■ Resource Management</li> <li>■ Mutual Aid</li> <li>■ Planning</li> <li>■ Direction, Control, and Coordination</li> </ul>

	<b>NFPA 1600 Standards</b>
	<ul style="list-style-type: none"> <li>■ Communications &amp; Warning</li> <li>■ Operational Procedures</li> <li>■ Logistics &amp; Facilities</li> <li>■ Training</li> <li>■ Exercises, Evaluations, &amp; Corrective Actions</li> <li>■ Crisis Communication &amp; Public Information</li> <li>■ Finance &amp; Administration</li> </ul>

	
	<p style="font-size: 2em; font-weight: bold;">Core</p> <p style="font-size: 4em; font-weight: bold;">Standards</p>

	<b>Hazard ID, Risk Assessment and Impact Analysis</b>
	<ul style="list-style-type: none"> <li>■ Identify hazards - <i>conditions or situations that have the potential for causing harm to people, property, or the environment</i></li> <li>■ Monitor those hazards</li> <li>■ Determine the likelihood of their occurrence</li> <li>■ Determine vulnerability to those hazards</li> </ul>

	<b>Hazard ID, Risk Assessment and Impact Analysis</b>
	<ul style="list-style-type: none"> <li>■ Natural hazards</li> <li>■ Human-caused hazards –<i>unintentional</i></li> <li>■ Human-caused hazards - <i>intentional</i></li> </ul>

	<b>Hazard ID, Risk Assessment and Impact Analysis</b>
	<ul style="list-style-type: none"> <li>■ Risk Assessment <ul style="list-style-type: none"> <li>– Life Safety</li> <li>– Essential Facilities</li> <li>– Critical Infrastructure</li> </ul> </li> </ul>

	<b>Hazard ID, Risk Assessment and Impact Analysis</b>
	<ul style="list-style-type: none"> <li>■ Impact Analysis <ul style="list-style-type: none"> <li>– Predictability</li> <li>– Magnitude</li> <li>– Speed of Onset</li> <li>– Cascading Effects</li> </ul> </li> </ul>

	<b>Mitigation</b>
	<ul style="list-style-type: none"> <li>■ Mitigate the effects of hazards that cannot be prevented</li> <li>■ Mitigation strategy is based on <ul style="list-style-type: none"> <li>– hazard identification and risk assessment</li> <li>– impact analysis</li> <li>– program constraints</li> <li>– operational experience</li> <li>– cost-benefit analysis</li> </ul> </li> </ul>

	<b>Resource Management</b>
	<ul style="list-style-type: none"> <li>■ Management system for describing, inventorying, requesting, and tracking</li> <li>■ Activating these systems prior to and during an incident</li> <li>■ Dispatching resources prior to and during an incident</li> </ul>

	<b>Resource Management</b>
	<ul style="list-style-type: none"> <li>■ Deactivating or recalling resources during or after incidents</li> <li>■ Contingency planning for resource shortfalls</li> </ul>

	<b>Planning</b>
	<ul style="list-style-type: none"> <li>■ Strategic plan</li> <li>■ Emergency operations/response plan</li> <li>■ Prevention plan</li> <li>■ Mitigation plan</li> <li>■ Recovery plan</li> <li>■ Continuity plan</li> </ul>

	<b>Planning</b>
	<ul style="list-style-type: none"> <li>■ Functional roles and responsibilities</li> <li>■ Lines of authority</li> <li>■ The means to manage incident information</li> </ul>

	<b>Planning - Principles</b>
	<ul style="list-style-type: none"> <li>■ Do not reinvent the wheel.</li> <li>■ Do not go it alone.</li> <li>■ Use existing organizational structures</li> <li>■ Research laws, ordinances, rules, etc.</li> </ul>

	<b>Planning - Principles</b>
	<ul style="list-style-type: none"> <li>■ Identify resources and gaps</li> <li>■ Write the plan <ul style="list-style-type: none"> <li>– Basic plan</li> <li>– Functional annexes</li> <li>– Hazard-specific appendices to support annexes</li> </ul> </li> </ul>

	<b>Planning - Annexes</b>
	<ul style="list-style-type: none"> <li>■ Functional annexes <ul style="list-style-type: none"> <li>– Direction and control</li> <li>– Communications</li> <li>– Warning</li> <li>– Public information</li> <li>– Evacuation</li> <li>– Mass care</li> <li>– Health &amp; medical</li> <li>– Resource management</li> </ul> </li> </ul>

	<b>Direction, Control and Coordination</b>
	<ul style="list-style-type: none"> <li>■ Incident management system to direct, control, and coordinate response and recovery operations</li> <li>■ Describe specific organizational roles, titles, and responsibilities for each incident management function</li> </ul>

	<h3>Direction, Control and Coordination</h3>
	<ul style="list-style-type: none"> <li>■ Coordination with stakeholders directly involved in response, continuity and recovery operations</li> </ul>

	<h3>Communications and Warning</h3>
	<ul style="list-style-type: none"> <li>■ Communications systems and procedures <ul style="list-style-type: none"> <li>– Established</li> <li>– Regularly tested</li> </ul> </li> <li>■ Notify officials</li> <li>■ Alert emergency response personnel</li> </ul>

	<h3>Communications and Warning</h3>
	<p>Which of the following pieces of information could be deleted from a 15-second Public Service Announcement on drinking water safety?</p> <ul style="list-style-type: none"> <li>a. The city water supply is contaminated.</li> <li>b. Paul Lining has been named Director of Public Works.</li> <li>c. Water should be boiled before it is used or consumed.</li> <li>d. The “boil water” edict is in force until further notice.</li> </ul>

	<h3>Communications and Warning</h3>
	<p>You need to warn the public about a collapsed bridge. What medium would be <b>least</b> useful in getting your message across?</p> <ul style="list-style-type: none"> <li>a. AM radio traffic update.</li> <li>b. Ham radio.</li> <li>c. Magazine feature story.</li> <li>d. Television.</li> </ul>

	<b>Operational Procedures</b>
	<ul style="list-style-type: none"> <li>■ Response and recovery procedures based on consequences of identified hazards <ul style="list-style-type: none"> <li>– Established</li> <li>– Implemented</li> </ul> </li> <li>■ Situation analysis <ul style="list-style-type: none"> <li>– Needs assessment</li> <li>– Damage assessment</li> <li>– Identification of resources shortfalls</li> </ul> </li> </ul>

	<b>Logistics and Facilities</b>
	<ul style="list-style-type: none"> <li>■ Procedures to locate, acquire, store, distribute, maintain, test, and account for procured and donated resources <ul style="list-style-type: none"> <li>– Services</li> <li>– Personnel</li> <li>– Materials</li> <li>– Facilities</li> </ul> </li> </ul>

	<b>Logistics and Facilities</b>
	<ul style="list-style-type: none"> <li>■ Establish an emergency operations center and an alternate EOC <ul style="list-style-type: none"> <li>– Equipped</li> <li>– Maintained</li> <li>– Periodically tested</li> </ul> </li> </ul>

	<b>Training</b>
	<ul style="list-style-type: none"> <li>■ Develop and implement a training/ educational curriculum to support the program</li> <li>■ Create awareness and enhance the skills required to develop, implement, maintain, and execute the program</li> </ul>

	<b>Training</b>
	<ul style="list-style-type: none"> <li>■ Trained in the jurisdiction's incident management system</li> <li>■ Comply with all applicable regulatory requirements</li> </ul>

	<b>Exercises, Evaluations, and Corrective Actions</b>
	<ul style="list-style-type: none"> <li>■ Designed to evaluate program plans, procedures, and capabilities <ul style="list-style-type: none"> <li>– Periodic reviews</li> <li>– Testing</li> <li>– Post-incident reports</li> <li>– Lessons learned</li> <li>– Performance evaluations</li> <li>– Exercises</li> </ul> </li> </ul>

	<b>Exercises, Evaluations, and Corrective Actions</b>
	<ul style="list-style-type: none"> <li>■ Designed to test individual essential elements, interrelated elements or the entire plan(s)</li> <li>■ Take corrective action on a deficiency identified</li> </ul>

	<b>Crisis Communication and Public Information</b>
	<ul style="list-style-type: none"> <li>■ Procedures to disseminate and respond to requests for pre-disaster, disaster and post-disaster information <ul style="list-style-type: none"> <li>– Internal audiences</li> <li>– External audiences</li> <li>– The media</li> </ul> </li> </ul>

## **Crisis Communication and Public Information**

- Public awareness program
  - Advise the public
  - Use authorized agencies
  - Discuss threats to people, property, and the environment

## **Finance and Administration**

- Develop procedures to support the program before, during and after an emergency or a disaster
  - Finance
  - Administration



# **Country-Specific Standards**

## **Laws and Authorities**

- Legislation
- Regulations
- Directives
- Policies
- Industry codes of practice

<b>Laws and Authorities</b>	
	<ul style="list-style-type: none"> <li>■ Robert T. Stafford Act</li> <li>■ Homeland Security Presidential Directives <ul style="list-style-type: none"> <li>– HSPD 5 – Management of Domestic Incidents</li> <li>– HSPD 7 – Homeland Security Advisory System</li> </ul> </li> <li>■ National Response Framework</li> <li>■ National Incident Management System</li> </ul>

<b>Laws and Authorities</b>	
	<ul style="list-style-type: none"> <li>■ Robert T. Stafford Act <ul style="list-style-type: none"> <li>– FEMA's Role and Responsibilities</li> <li>– Emergency Declarations</li> <li>– Public Assistance</li> <li>– Individual Assistance</li> <li>– Federal Coordinating Officer</li> <li>– State Coordinating Officer</li> <li>– Damage Assessments</li> </ul> </li> </ul>

<b>Laws and Authorities</b>	
	<ul style="list-style-type: none"> <li>■ National Response Framework <ul style="list-style-type: none"> <li>– Applies to all incidents requiring a coordinated Federal response</li> <li>– Always activated</li> <li>– Incidents of National Significance <ul style="list-style-type: none"> <li>■ Actual or potential high-impact event requiring robust and coordinated Federal response</li> </ul> </li> <li>– Includes state, local, tribal authorities</li> <li>– Includes the Private Sector</li> <li>– Companion to the National Incident Management System (NIMS)</li> </ul> </li> </ul>

<b>Laws and Authorities</b>	
	<ul style="list-style-type: none"> <li>■ National Incident Management System <ul style="list-style-type: none"> <li>– Command and Management</li> <li>– Preparedness</li> <li>– Resource Management</li> <li>– Communications and Information Management</li> <li>– Supporting Technologies</li> </ul> </li> </ul>

	<b>Resource Management</b>
	<ul style="list-style-type: none"> <li>■ Management system for describing, inventorying, requesting, and tracking</li> <li>■ Activating these systems prior to and during an incident</li> <li>■ Dispatching resources prior to and during an incident</li> </ul>

	<b>Resource Management</b>
	<ul style="list-style-type: none"> <li>■ Deactivating or recalling resources during or after incidents</li> <li>■ Contingency planning for shortfalls of resources</li> </ul>

	<b>Mutual Aid</b>
	<ul style="list-style-type: none"> <li>■ Determine need for mutual aid</li> <li>■ Establish agreements</li> <li>■ Reference mutual aid in the applicable program plan</li> </ul>

	<b>Direction, Control and Coordination</b>
	<ul style="list-style-type: none"> <li>■ Incident Command System <ul style="list-style-type: none"> <li>– Common Terminology</li> <li>– Modular Organization</li> <li>– Management by Objectives</li> <li>– Incident Action Plans</li> <li>– Span of Control</li> <li>– Pre-designated Incident Locations and Facilities</li> </ul> </li> </ul>

	<b>Direction, Control and Coordination</b>
	<ul style="list-style-type: none"> <li>■ Incident Command System <ul style="list-style-type: none"> <li>– Comprehensive Resource Management</li> <li>– Integrated Communications</li> <li>– Establishment and Transfer of Command</li> <li>– Chain of Command &amp; Unity of Command</li> <li>– Unified Command</li> <li>– Accountability</li> <li>– Deployment</li> <li>– Information and Intelligence Management</li> </ul> </li> </ul>

	<b>Command</b>
	<ul style="list-style-type: none"> <li>■ Responsible for incident management</li> <li>■ Develops incident objectives</li> <li>■ Approves the Incident Action Plan</li> <li>■ Transfer Command</li> <li>■ Unified Command</li> <li>■ Supported by Public Information, Safety, and Liaison Officers</li> </ul>

	<b>Operations</b>
	<ul style="list-style-type: none"> <li>■ Manages tactical operations at the incident site</li> <li>■ Involved in preparing the Incident Action Plan</li> </ul>

	<b>Planning</b>
	<ul style="list-style-type: none"> <li>■ Responsible for collecting, evaluating, and disseminating tactical information pertaining to the incident</li> <li>■ Maintains information and intelligence on the current and forecasted situation</li> <li>■ Prepares the Incident Action Plan</li> </ul>

## Logistics

- Supports needs for the incident including ordering resources from off-site locations
- Provides facilities, transportation, supplies, equipment, maintenance, and fueling
- Includes communication and medical services to incident personnel

## Finance and Administration

- Develop procedures to support the program before, during and after an emergency or a disaster
  - Financial (cost analysis & procurement)
  - Reimbursement (Claims)
  - Administrative Services (Time)



# Practice Exam Questions

## Practice Exam Questions

- Which of the following hazards can be predicted days in advance?
  - A. Earthquake
  - B. Hurricane
  - C. Tsunami
  - D. Wildfire

### Practice Exam Questions

- In which phase of emergency management do you develop and exercise an emergency operations plan?
  - A. Mitigation
  - B. Preparedness
  - C. Response
  - D. Recovery

### Practice Exam Questions

- Which of the following should be included in a mitigation plan?
  - A. Only easily achievable actions
  - B. Only a single action
  - C. Prioritized actions
  - D. Short-term actions

### Practice Exam Questions

- Which of the following is not a role for the emergency operations center (EOC)?
  - A. Coordination during emergency response
  - B. Disaster planning
  - C. Disaster recovery
  - D. Reimbursement for damages

### Practice Exam Questions

- Which of the following is a characteristic of a good emergency operations plan?
  - A. It is based on valid assumptions
  - B. Language is detailed and technical
  - C. Little involvement from outside agencies
  - D. Plan is not exercised

## Practice Exam Questions

- Having a pre-event emergency plan in place will help:
  - A. Increase revenue to the community
  - B. Reduce response time
  - C. “Sell” an unpopular event
  - D. The sponsor avoids paying for local emergency services



THANK  
YOU