

FLORIDA STATE COLLEGE AT JACKSONVILLE

COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER: FES 4823

COURSE TITLE: Managerial Issues in Hazardous Materials

PREREQUISITE(S): None

COREQUISITE(S): None

STUDENT ADVISING NOTES: Junior Level or Above

CREDIT HOURS: 3

CONTACT HOURS/WEEK: 3

CONTACT HOUR BREAKDOWN:

Lecture/Discussion: 3

Laboratory:

Other _____:

FACULTY WORKLOAD POINTS: 3

STANDARDIZED CLASS SIZE ALLOCATION: 30

CATALOG COURSE DESCRIPTION:

This course examines regulatory issues, hazard analysis, multi agency contingency planning, response personnel, multi agency response resources, agency policies, procedures and implementation, public education and emergency information systems, health and safety, command post dynamics, strategic and tactical considerations, recovery and termination procedures, and program evaluation.

SUGGESTED TEXT(S): Hazardous Materials: Managing the Incident,
Michael Hildebrand and Gregory Noll,
Fire Protection Publications, Stillwater

Managerial Issues in Hazardous Materials Course Guide, National Fire Academy

IMPLEMENTATION DATE: Fall Term, 2006 (20071)

REVIEW OR MODIFICATION DATE: Spring Term, 2007 (20072)

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
I. Introduction	3
A. Describe the correlation between trends in chemical use and emergency release incidents;	
B. Define the terms used by OSHA, EPA, and DOT to describe hazardous	
C. Materials, hazardous waste, and extremely hazardous substances; and	
D. Explain the three emergency response levels described in NFPA 471	
II. Regulatory Issues	4
A. Trace the history of U.S. environmental legislation as it affects hazardous materials response	
B. Summarize the intent of major pieces of legislation that affect hazardous materials planning and emergency response	
C. Explain the major provisions of SARA Title I and Title III with regard to hazardous materials planning and response	
D. List the federal agencies that have responsibility for enacting and enforcing hazardous materials regulations and the specific area of concern of each agency	
E. Identify national codes and standards dealing with hazardous materials.	
III. Hazard Analysis	3
A. Identify the purpose of each of the primary steps in hazard analysis	
B. Describe how hazard analysis is performed at fixed facilities	
C. Describe how hazard analysis is performed for transportation corridors	
D. State the purpose of performing a needs assessment regarding potential hazards	
E. Explain why a jurisdiction should perform a capabilities assessment regarding its existing response system	
F. Explain why hazard analysis is an important part of emergency response	
IV. Multi-Agency Contingency Planning	4
A. Describe multi agency contingency planning and state its importance in managing a hazardous materials incident	
B. Explain the purpose of the State Emergency Response Commission (SERC) and its role in managing a hazardous materials incident	
C. Explain the purpose of the Local Emergency Planning Committee (LEPC) and its role in the contingency planning process	
D. State the legal requirements for, and major benefits of, using the Incident Command System in contingency planning	
E. Describe the Community Awareness and Emergency Response (CAER) program and its possible role in the contingency planning process.	

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
<p>V. Response Personnel</p> <p>A. Discuss the similarities and critical differences between a "normal" fire emergency and a hazardous materials emergency</p> <p>B. Identify the capabilities and limitations of first responders with regard to equipment, protective clothing, training, and experience</p> <p>C. List and explain the training and emergency response requirements mandated in 29 CFR 1910.120 (q) and compare them to NFPA 472</p> <p>D. Explain the certification of competency process</p> <p>E. Briefly discuss the major personnel issues involved in developing a hazardous materials team, including selection and training of personnel, medical surveillance compensation, employee retention, and burnout</p>	3
<p>VI. Multi-Agency Response Resources</p> <p>A. Outline the process for identifying the resources for a hazardous materials response</p> <p>B. Identify local resources available for hazardous materials response</p> <p>C. Outline the pre-response responsibilities of a manager planning for hazardous materials response</p> <p>D. List special resources, other than local ones, that can be used for hazardous materials response.</p>	3
<p>VII. Agency Policies, Procedures, and Implementation: Making It Work</p> <p>A. Discuss the need for policies, plans, and SOPs</p> <p>B. Identify the four components of the planning review process</p> <p>C. Describe four issues that can affect the implementation of planning systems and documents</p> <p>D. List the four elements of tort liability</p> <p>E. Identify three actions that can reduce liability associated with planning documents and systems</p>	3
<p>VIII. Public Education and Emergency Information Systems</p> <p>A. Explain the terms "public alerting" and "emergency information"</p> <p>B. Describe the purposes of public education programs</p> <p>C. Explain the role that public education programs fill in community planning and right-to-know</p> <p>D. Describe the two primary public protection options about which the public must be educated</p>	3

COURSE TOPICS	CONTACT HOURS <u>PER TOPIC</u>
IX. Health and Safety	4
<ul style="list-style-type: none"> A. List the managerial issues relating to hazardous materials health and safety requirements B. List the statutory requirements for compliance with OSHA 1910.120 with respect to health and safety C. Define the duties and responsibilities of a hazardous materials scene Safety Officer D. State the similarities and differences between an ICS Safety Officer and a hazardous materials Safety Officer E. List in proper sequence the parts of a decontamination process F. State the reason for a baseline medical examination for hazardous scene/response workers G. List the components of on scene medical and environmental monitoring 	
X. Command Post Dynamics	3
<ul style="list-style-type: none"> A. List and describe the major functions of the Incident Command System B. Identify the differences between a Command Post and an Emergency Operations Center C. List and describe the added functions of an Incident Command System where hazardous materials are involved D. Identify the special personnel and equipment needs of a Command Post or Emergency Operations Center during a hazardous materials incident <ul style="list-style-type: none"> A. List the information functions required during a hazardous materials incident 	
XI. Hazardous Materials Incident Management	3
<ul style="list-style-type: none"> A. List and describe the steps of the management process at a hazardous materials incident B. List the types of data needed to make an accurate size up at a hazardous materials incident C. Discuss the strategic goals for managing a hazardous materials incident given a strategic goal, identify the tactical options available D. Describe the actions taken by the incident commander concerning his/her action plan 	
XII. Recovery and Termination Procedures	3
<ul style="list-style-type: none"> A. Define the terms "recovery" and "termination" B. Describe what occurs during on scene recovery C. Describe what occurs during operational recovery D. Identify the federal precedents for cost recovery legislation E. Describe the four phases of termination 	

COURSE TOPICS

CONTACT HOURS
PER TOPIC

XIII. Program Evaluation

3

- A. List four primary parts of the response system that must be evaluated
- B. Name the five local emergency response documents that should be
- C. Integrated into the total hazardous materials response system
- D. Describe the steps involved in a safety audit process
- E. Explain the major elements of a Total Involvement Safety (TIS) program
- F. Identify the three primary types of exercises found in an effective exercise program
- G. Discuss the effects of change relative to the ongoing evaluation process

IVX. Putting It All Together

3

- A. Describe how hazardous materials regulatory trends affect the role of the fire service
- B. Identify three ways in which legal affairs may determine future roles of the fire
- C. Service when dealing with hazardous materials
- D. List two sources of alternative funding for fire service programs involving hazardous materials
- E. Describe the relationship between the fire service and the five community hazardous materials planning tasks
- F. Discuss the means available to keep current with new developments in regulations,
- G. Industry changes, and hazardous materials response systems



NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

<i>Section 1</i>	
COURSE PREFIX AND NUMBER: FES 4823	SEMESTER CREDIT HOURS: 3
COURSE TITLE: Managerial Issues in Hazardous Matereials	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

<input type="checkbox"/> AA Elective	<input type="checkbox"/> AS Required Professional Course	<input type="checkbox"/> College Prep
<input type="checkbox"/> AS Professional Elective	<input type="checkbox"/> AAS Required Professional Course	<input type="checkbox"/> Technical Certificate
<input checked="" type="checkbox"/> Other BAS Required Professional Course		
<input type="checkbox"/> General Education: (For General Education courses, you must also complete Section 3 and Section 7)		

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

<input type="checkbox"/> Communications	<input type="checkbox"/> Social & Behavioral Sciences	<input type="checkbox"/> Mathematics
<input type="checkbox"/> Natural Sciences	<input type="checkbox"/> Humanities	

Section 4

INTELLECTUAL COMPETENCIES:

<input checked="" type="checkbox"/> Reading	<input checked="" type="checkbox"/> Speaking	<input checked="" type="checkbox"/> Critical Analysis	<input type="checkbox"/> Quantitative Skills	<input type="checkbox"/> Scientific Method of Inquiry
<input type="checkbox"/> Writing	<input checked="" type="checkbox"/> Listening	<input type="checkbox"/> Information Literacy	<input checked="" type="checkbox"/> Ethical Judgment	<input checked="" type="checkbox"/> Working Collaboratively

<i>Section 5</i>		
	LEARNING OUTCOMES	METHOD OF ASSESSMENT
•	describe the correlation between trends in chemical use and emergency release incidents	exam
•	identify the purpose of each of the primary steps in hazard analysis	exam
•	explain the purpose of the State Emergency Response Commission (SERC) and its role in managing a hazardous materials incident	exam
•	explain the certification and competency process	exam
•	identify local resources available for hazardous materials respnse;	exam
•	describe the two primary public protection options about which the public must be educated	exam
•	list the managerial issues relating to hazardous materials health and safety requirements	exam
•	list the information functions required during a hazardous	exam

Section 6 Name of Person Completing This Form: **Rick Nelson** Date: **8-22-2005**