



## **National Fire Academy**

### **N0154 – Safety Program Operations**

**Version: 1st Edition, 5th Printing, October 2018**

**Quarter:**

**ACE Credit: In the upper division baccalaureate degree category, three semester hours in fire science, fire administration or risk management.**

**IACET Continuing Education Units: 4.4**

**Length of Course: 6 Days (41 hr., 40 min. contact hours, Sunday - Friday)**

**Prerequisite: Yes**

**Curriculum: Responder Health and Safety**

**Training Specialist: George Morgan**

**Instructor:**

**Instructor email/phone:**

**Classroom: J-**

**Meeting Time: 8 AM – 5 PM**

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### **Course Description (Catalog)**

N0154 – “Safety Program Operations.” This six-day course provides knowledge and practice in the context of current issues to develop strategies of risk management associated with the provision of firefighting and EMS services to reduce firefighter fatalities and injuries. With a focus on using the risk management model in the health and safety aspects of emergency services operations, current regulations, standards, policies and responsibilities for program management, day-to-day operations, and incident safety will be addressed.

## **Student Qualifications (Primary and Secondary Audience)**

Company-level officers, chief officers, and supervisors who have department-level health and safety responsibilities (such as program planning and implementation) and who may serve as an Incident Safety Officer or department Health and Safety Officer.

## **Course Scope (Goal)**

The goal of this course is to further that operational objective by providing participants with the knowledge, skills and abilities (KSAs) to develop strategies to manage risk associated with the provision of firefighting, EMS and special operations services that focus on the reduction of firefighter and emergency services fatalities and injuries.

The scope of SPO is by design very broad and affords ample opportunity to explore many health and safety areas and issues. The student is encouraged to expand the scope of any discussion to include specific problem areas or issues that have been encountered. Instructors have a responsibility to keep the course on track, but also have the leeway to meet the needs of individual classes. However, coverage of an unplanned topic may require after-hours discussion to complete.

## **Course Objectives (Course Learning Outcomes – TLOs)**

After successfully completing this course, you will be able to accomplish the following:

- Describe the scope of the national firefighter fatality and injury problem.
- Describe the goal and apply the steps involved in instituting a risk management program.
- Describe the responsibilities of all fire/Emergency Medical Services (EMS) agency personnel relating to safety and health.
- Identify and describe the regulations, standards and policies that affect fire/Emergency Medical Services (EMS) agency personnel safety.
- Determine emergency responder health and wellness issues in relationship to existing standards, best practices and department issues.
- Explain the importance of and describe the methodology used in investigating near misses, mishaps, injuries and death.
- Explain and apply risk management principles to emergency situations.
- Identify specific hazards and conditions that present increased risk to fire/Emergency Medical Services (EMS) personnel and discuss general mitigation strategies to reduce the frequency and severity of fire/EMS personnel injuries.
- Discuss the importance of and describe the appropriate methodology for an After Action Review (AAR).

## **Course Delivery Method**

The National Fire Academy (NFA) offers specialized training courses and advanced management programs of national impact in an academic classroom environment [on campus at the National Emergency Training Center \(NETC\) in Emmitsburg, Maryland](#) and through their State, local, tribal, and US territories training partners. All course materials are designed for interactive classroom environments, in either paper notebook or electronic formats.

## Course Schedule

The purpose of the course schedule is to give you, at a glance, the required preparation, activities, and evaluation components of your course.

DAY 1	DAY 2
Intro: Welcome and Introductions	Unit 2: Risk Management Process (cont'd)
<i>Break</i>	<i>Break</i>
Intro: Welcome and Introductions (cont'd)	Unit 2: Risk Management Process (cont'd)
<i>Break</i>	<i>Break</i>
Unit 1: The Firefighter Fatality and Injury Problem	Unit 2: Risk Management Process (cont'd) Unit 3: Safety Responsibilities
<i>Lunch Break</i>	<i>Lunch Break</i>
Unit 1: The Firefighter Fatality and Injury Problem (cont'd)	Unit 3: Safety Responsibilities (cont'd)
<i>Break</i>	<i>Break</i>
Unit 2: Risk Management Process	Unit 3: Safety Responsibilities (cont'd) Unit 4: Regulations, Standards and Policies Discussion of current issues LRC Orientation

Note: This schedule is subject to modification by the instructors and approved by the training specialist.

<b>DAY 3</b>	<b>DAY 4</b>
Unit 4: Regulations, Standards and Policies (cont'd)	Unit 6: Investigations (cont'd)
<i>Break</i>	<i>Break</i>
Unit 4: Regulations, Standards and Policies (cont'd)	Unit 7: Operational Risk Management
<i>Break</i>	<i>Break</i>
Unit 5: Health and Wellness	Unit 7: Operational Risk Management (cont'd)
<i>Lunch Break</i>	<i>Lunch Break</i>
Unit 5: Health and Wellness (cont'd)	Unit 7: Operational Risk Management (cont'd)
<i>Break</i>	<i>Break</i>
Unit 5: Health and Wellness (cont'd) Unit 6: Investigations Discussion of current issues	Unit 8: Situation-specific Hazards and Mitigation Strategies  Work on outline for Activity 2.3: Emerging Issues Risk Management Plan

<b>DAY 5</b>	<b>DAY 6</b>
Unit 8: Situation-specific Hazards and Mitigation Strategies (cont'd)	Activity 2.3: Emerging Issues Risk Management Plan Student Presentations
<i>Break</i>	<i>Break</i>
Unit 8: Situation-specific Hazards and Mitigation Strategies (cont'd)	Activity 2.3: Emerging Issues Risk Management Plan Student Presentations (cont'd)
<i>Break</i>	<i>Break</i>
Unit 9: After Action Review	Activity 2.3: Emerging Issues Risk Management Plan Student Presentations (cont'd)
<i>Lunch Break</i>	<i>Lunch Break</i>
Unit 9: After Action Review (cont'd)	Final Written Examination
<i>Break</i>	<i>Break</i>
Work on outline for Activity 2.3: Emerging Issues Risk Management Plan (cont'd)	Graduation

## **Course Resources (Instructional Materials)**

In order to be fully prepared, obtain a copy of the required textbooks and other instructional materials prior to the first day of class.

### **Required Readings**

The student must complete required readings during the course to be able to thoughtfully participate in discussions and activities.

None.

### **Suggested Reading/Resources**

Suggested readings and resources are not evaluated, but may enhance the student's understanding, serve as additional sources for citation and promote discussion of course material.

None.

### **Required Resources (Course Textbook)**

Student Manual.

### **Supplemental Resources (Supplemental Course Textbook)**

None.

## **Grading Methodology (Evaluation Procedures)**

### **Final Grade**

The student's final grade for EMS Quality Management is comprised of evening assignments and a final project presentation.

Evening assignments: 8 assignments up to 10 points each = 80 possible total.

Final project presentation: 20 points possible total.

<b>Numerical Score</b>	<b>Letter Grade</b>
100-90	A
89-80	B
79-70	C
69 or below	F

### **EXAMINATION ADMINISTRATION PROCEDURES**

Students will be given exams at the end of the class, and only the instructor will grade the exams. While the exams are being graded by the instructor, students will be asked to complete end-of-course evaluations.

Exams are to be completed individually and not as a group or a group activity, unless specifically directed within the instructor guide for the specific course. Students should use pencils to complete answer sheets if bubble sheets and a scoring key overlay are being used.

There should only be one answer for any given question marked by the student. A question with multiple answers is considered incorrect. Please mark number of incorrect answers on completed exam sheets, record score (percentage), and mark the appropriate letter grade.

Transfer the letter grades to the corresponding student name on the course roster.

If a student does not obtain a passing grade on the first attempt, the instructor will provide remediation<sup>1</sup> prior to a retest. Students who do not pass the first exam will be allowed to take one retest of a new exam before departing from the class. A second failure will result in a grade of “F” being recorded on the grade roster.

Once all exams have been graded, instructors should review the exam as a group. In the event of unusual events (storm, fire response, family emergency) or early departure, the host agency or state representative may be asked to proctor the exam at a later date. The instructor is responsible to notify the Training Specialist as soon as practical of the situation and name of person responsible for the exams and testing process.



## **Required Reading Assignments**

Student completion of reading assignments will be done via evaluation of their class participation and will not be a separately graded activity.

## **Suggested Readings**

Suggested readings are not evaluated, but may enhance the student's understanding and promote discussion of course material.

## **Course Outline**

### **Unit 1: The Firefighter Fatality and Injury Problem (Day 1)**

#### **Objectives**

##### **Terminal Objective**

The students will be able to:

- 1.1 Describe the scope of the national firefighter fatality and injury problem.

##### **Enabling Objectives**

The students will be able to:

- 1.1 Identify the most common causes of firefighter deaths during the past decade.
- 1.2 Identify the most common causes of firefighter injuries during the past decade.
- 1.3 List the criteria for line-of-duty deaths (LODDs).
- 1.4 Describe the correlation between the 16 Life Safety Initiatives and firefighter deaths and injuries.
- 1.5 Analyze a given case study to determine factors contributing to a fatality.

### **Unit 2: Risk Management Process (Day 1)**

#### **Objectives**

##### **Terminal Objective**

The students will be able to:

- 2.1 Describe the goal and apply the steps involved in instituting a risk management program.

### **Enabling Objectives**

The students will be able to:

- 2.1 Identify and discuss risk management and the necessity for fire and Emergency Medical Services (EMS) departments to do risk management.
- 2.2 Identify the methods of detecting risk within a department.
- 2.3 Identify risks (current and potential) involved in both emergency and nonemergency operations.
- 2.4 Discuss the liability issues related to organizational risks.
- 2.5 Identify documentation necessary to support/defend the risk management program.
- 2.6 Use the risk management process to analyze and develop a plan for managing three emerging risks within the student's organization.
- 2.7 Present to the class a plan outline to deal with an emerging health and safety issue (Day Six project).

### **Unit 3: Safety Responsibilities (Day 2)**

#### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 3.1 Describe the responsibilities of all fire/Emergency Medical Services (EMS) agency personnel relating to safety and health.

#### **Enabling Objectives**

The students will be able to:

- 3.1 Describe the Incident Command System (ICS) and the place of the Incident Safety Officer (ISO) within that system.
- 3.2 Describe the role and responsibilities of:
  - Fire/EMS Chief or Agency Director.
  - ISO.

- Health and Safety Officer (HSO).
  - Command Officer.
  - Company Officer (CO).
  - Firefighter/Emergency medical technician (EMT).
  - Safety Committee.
- 3.3 Discuss the importance of clear and accurate communications between all levels of the department as they relate to safety.
- 3.4 Identify safe and unsafe practices, given a visual scenario.

#### **Unit 4: Regulations, Standards and Policies (Day 2)**

##### **Objectives**

##### **Terminal Objective**

The students will be able to:

- 4.1 Identify and describe the regulations, standards and policies that affect fire/Emergency Medical Services (EMS) agency personnel safety.

##### **Enabling Objectives**

The students will be able to:

- 4.1 Compare and contrast the following terminology:
- Regulation.
  - Standard.
  - Policy.
- 4.2 Identify and explain the impact of regulations, standards and policies that directly affect fire/EMS agency personnel safety.
- 4.3 Describe the recommendations contained within National Fire Protection Association (NFPA) 1500 and NFPA 1521.
- 4.4 Given a scenario, research, review and apply an actual law, standard or regulation to a given risk of emergency operations.

## **Unit 5: Health and Wellness (Day 3)**

### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 5.1 Determine emergency responder health and wellness issues in relationship to existing standards, best practices and department issues.

#### **Enabling Objectives**

The students will be able to:

- 5.1 Identify and discuss the components of a comprehensive firefighter/Emergency Medical Services (EMS) personnel health and wellness program.
- 5.2 Discuss confidentiality in relation to a health and wellness program.
- 5.3 Identify and describe the regulations and standards that apply to firefighter/EMS personnel health and wellness.
- 5.4 Describe the effect of sleep deprivation on fire/EMS responders.
- 5.5 Identify, describe and discuss issues dealing with the mental health and suicide of fire/EMS responders.
- 5.6 Conduct an analysis to determine factors that would affect the implementation of a health and wellness program in a fire/EMS department.

## **Unit 6: Investigations (Day 3)**

### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 6.1 Explain the importance of and describe the methodology used in investigating near misses, mishaps, injuries and death.

### **Enabling Objectives**

The students will be able to:

- 6.1 Identify situations that merit investigation.
- 6.2 Describe the need for proper investigation of mishaps, fire/Emergency Medical Services (EMS) personnel injuries, and deaths.
- 6.3 Identify resources and outside agencies that can assist with investigations.
- 6.4 identify the need to document near-miss incidents and describe the International Association of Fire Chiefs' (IAFC) near-miss reporting process.
- 6.5 Identify and discuss issues related to the initial stages of the investigation of a specific accident or near-miss incident.

## **Unit 7: Operational Risk Management (Day 4)**

### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 7.1 Explain and apply risk management principles to emergency situations.

#### **Enabling Objectives**

The students will be able to:

- 7.1 Identify and describe the use of an emergency risk management plan.
- 7.2 Describe the use of Geographic Information System (GIS) in emergency risk management.
- 7.3 Identify risk concerns for selected all-hazards events and incidents.
- 7.4 Given a video scenario, use the Naturalistic Decision Making (NDM) process to apply the emergency risk management plan to the following situations:
  - Immediate risks.
  - Forecasted risks.
- 7.5 Complete an Incident Action Plan (IAP) — Safety Analysis Form.

## **Unit 8: Situation-specific Hazards and Mitigation Strategies (Day 4)**

### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 8.1 Identify specific hazards and conditions that present increased risk to fire/Emergency Medical Services (EMS) personnel and discuss general mitigation strategies to reduce the frequency and severity of fire/EMS personnel injuries.

#### **Enabling Objectives**

The students will be able to:

The students will be able to:

- 8.1 Discuss the risks associated with:
  - Abandoned building operations.
  - Hazardous materials/Terrorism.
  - Technical rescue.
  - Highway operations.
  - Incidents involving violence.
  - Wildland fires.
  - Weather-related issues.
  - Pandemic influenza.
- 8.2 Discuss the application of specific mitigation strategies, including Rapid Intervention Crews (RICs), personnel accountability system, and emergency incident rehabilitation.
- 8.3 Describe the Crew Resource Management (CRM) concept and its implications on emergency operations.
- 8.4 Given a scenario, develop a policy or procedure with appropriate support material.

## **Unit 9: After Action Review (Day 5)**

### **Objectives**

#### **Terminal Objective**

The students will be able to:

- 9.1 Discuss the importance of and describe the appropriate methodology for an After Action Review (AAR).

#### **Enabling Objectives**

The students will be able to:

- 9.1 Describe the AAR process.
- 9.2 Describe the roles of students, specifically the Incident Safety Officer (ISO) and the Health and Safety Officer (HSO) in the AAR process.
- 9.3 Define the outcome applications of the AAR.
- 9.4 Given a scenario, determine what safety issues should be addressed in the AAR and develop an improvement plan.

### **Policies**

#### **Class Attendance and Cancellation Policy**

##### **Attendance**

- You are required to attend all sessions of the course. If you do not, you may not receive a certificate.
- If you need to depart the training facility early and miss any portion of the course, you must make the request in writing to the sponsoring agency (e.g., State training director, etc.). The State training director may waive the attendance requirement in order to accommodate you with extraordinary circumstances as long as you complete all course requirements.

##### **Course Failure**

You can reapply for the failed course or any other NFA course and go through the random selection process. You don't have to successfully complete the failed course before attending another NFA course.

## **Student Code of Conduct Policy**

Students, instructors and staff are expected to treat each other with respect at all times. Inappropriate behavior will not be tolerated.

## **Writing Expectations**

Student writing will conform to the generally accepted academic standards for college papers. Papers will reflect the original work of the student and give appropriate credit through citations for ideas belonging to other authors, publications or organizations. Student written work should be free of grammatical and syntax errors, free of profanity or obscene language or ideas, and reflect critical thinking related to the course subject matter.

## **Citation and Reference Style**

Attention Please: Students will follow the APA, Sixth Edition as the sole citation and reference style used in written work submitted as part of coursework to NFA. Assignments completed in a narrative essay, composition format, abstract, and discussion posts must follow the citation style cited in the APA, Sixth Edition.

## **Late Assignments**

All assignments must be turned in by the established deadline. Late submissions could result in a 10 percent decrease in grade.

## **Disclaimer Statement**

Course content may vary from the outline to meet the needs of this particular group.

## **Grading**

Please review the following rubrics that explain how grades will be awarded.

Students who do not complete the entire course will be awarded an Incomplete (I) grade. In accordance with National Fire Academy academic policies, an Incomplete (I) grade must be removed by the end of the next semester following the course, or it automatically becomes a Failing (F) grade.

[https://www.usfa.fema.gov/training/nfa/admissions/student\\_policies.html](https://www.usfa.fema.gov/training/nfa/admissions/student_policies.html)

## **Academic Honesty**

Students are expected to exhibit exemplary ethical behavior and conduct as part of the NFA community and society as a whole. Acts of academic dishonesty including cheating, plagiarism, deliberate falsification, and other unethical behaviors will not be tolerated.



Students are expected to report academic misconduct when they witness a violation. All cases of academic misconduct shall be reported by the instructor to the State training director or host agency and to the NFA Training Specialist.

If a student is found to have engaged in misconduct and the allegations are upheld, the penalties may include, but are not limited to one or a combination of the following:

- expulsion,
- exclusion from future classes for a specified period; depending on the severity it could range from 1-10 years, and/or
- forfeiture of certificate for course(s) enrolled in at NETC.

Refer to NFA-specific Standard Operating Procedure 700.1 – *Academic Code of Conduct and Ethics* for more information.

## Grading Rubrics

### Activity 2.3 Grade Sheet

Student's Name: \_\_\_\_\_

Course Date: \_\_\_\_\_

	Meets expectations	Minor recommendations		Significant recommendations	Incomplete	
	10	8	5	3	0	Mark
<b>Technical Content</b>						
1. Identify three emerging issues in your department for the plan.						
2. Identify the probabilities improving safety in your department based on what you have learned in this class.						
3. Identify probable consequences if they occur ( <b>consider effects on human resources</b> ).						
4. Identify any known national experience with the emerging issues or risks identified.						
<b>Presentation Time (minutes)</b>	<b>4 to 6</b>	<b>3 or 7</b>	<b>2 or 8</b>	<b>1 or 9</b>	<b>0 or over 9</b>	
The student's presentation was 4-6 minutes.						

Comments/Recommendations: \_\_\_\_\_

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(continue on reverse if necessary)

Instructor: \_\_\_\_\_

Instructor: \_\_\_\_\_

**Course Date:** \_\_\_\_\_

Instructor: \_\_\_\_\_

Instructor: \_\_\_\_\_