

**FIRE-252-INCIDENT SAFETY OFFICER 1 CREDIT**

**SYLLABUS**

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**CATALOG DESCRIPTION**

This course will examine the safety officer's role during emergency response situations, with a focus on operations within an Incident Command System (ICS). Participants should have a working knowledge of ICS, building construction principles, hazardous materials management, applicable NFPA guidelines, and federal regulations.

Prerequisites:           None

Semester Offered:      As Needed

***Common Student Learning Outcomes***

*Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...*

**BROAD AND SPECIALIZED LEARNING**

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

**CRITICAL THINKING**

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

**CULTURAL AND CIVIC ENGAGEMENT**

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

**EFFECTIVE COMMUNICATION**

Students will exchange ideas and information with clarity in multiple contexts.

**INFORMATION LITERACY**

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

**INTEGRATING TECHNOLOGIES**

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

*Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.*

**Course Learning Outcomes**

Upon successful completion of the course, the student will be able to...

1. Describe the emergence of the safety officer role in fire departments.

2. Discuss the history of the fire department safety officer.
3. List the National Fire Protection Association Standards (NFPA) standards that affect and pertain to the incident safety officer.
4. Explain the need for an incident safety officer in empirical and image terms.
5. List the three elements that affect safety in the work environment.
6. Discuss the differences between formal and informal processes.
7. List the qualities of a well-written procedure or guideline.
8. Discuss the external influences that influence safety equipment design and purchase.
9. List and discuss the three factors that contribute to a person's ability to act safely.
10. Define risk management.
11. Identify and explain the five parts of classic risk management.
12. Explain the motivation for the development of guiding publications.
13. List the significant players and their roles in developing guiding publications.
14. Define the differences between regulations, codes, laws, and guides.
15. List significant publications that can impact the incident safety officer.
16. Discuss the reasoning for preplanning the response of an incident safety officer.
17. List four examples of when an automatic ISO response should take place.
18. List four examples of when an incident commander should automatically delegate the safety responsibility to an ISO.
19. List and discuss the advantages and disadvantages of using various methods to ensure that an ISO arrives on scene.
20. Discuss the authorities suggested for incident safety officers by NFPA standards.
21. List several tools that will help the ISO be effective on scene.
22. List the three areas that an ISO must "front-load" to help perform the functions of the ISO.
23. Discuss the concept of "mastery" and its benefit to the ISO.
24. Describe the relationships among knowledge, skill, and attitude.
25. List the three components of an attitude.
26. Describe the relationship of loads and load imposition in a building.
27. List the three types of force created when loads are imposed on materials.
28. Define columns, beams, connections.
29. Explain the effects of fire on building construction elements.
30. List and define the five common types of building construction.
31. Define and list several types of hybrid buildings.
32. List, in-order, the five-step analytical approach to predicting building collapse.
33. List several factors that accelerate the time that a structural element will fail under fire conditions.
34. Define "smoke".
35. List common hostile fire events and their associated warning signs.
36. List the four attributes of smoke.
37. Describe what each of the four smoke attributes contributes to the understanding of fire behavior in a building.
38. Define "black fire" and its relevance to firefighting efforts.
39. Explain how influencing factors can affect smoke attributes.
40. List the three steps in the reading smoke process.
41. Describe the differences between dangerous and risky.
42. List the three influences on risk-taking values.
43. List the risk management concepts outlined in NFPA standards.
44. Define situational awareness.
45. Describe three methods to read risk at an incident.

46. Define hazardous energy and list four ways to categorize its status.
47. List common electrical equipment and their associated hazards.
48. List the chemical properties of common utility gases.
49. List the hazards associated with utility water and storm sewer systems.