

Fundamentals of Fire Prevention

Course Design

2002-2003

Course Information

Organization:	EASTERN ARIZONA COLLEGE
Division:	ITE
Course Number:	FSC 130
Title:	Fundamentals of Fire Prevention
Credits:	3
Developed by:	Dr. Barbara Ganz
Lecture/Lab Ratio:	3 Lec/0 Lab
Transfer Status:	Transferable to ASU East- BAS; Non-transferable to UofA or NAU
Extended Registration	
Class:	No
CIP Code:	43.0203
Assessment Mode:	Pre-Post Test with a total of 10 points possible
Semester Taught:	Offered upon request.
Gen. Ed. Area:	None
Separate Lab:	No
Awareness Course:	NO
Intensive Writing	
Course:	NO
Prerequisites:	1. None
Educational Value:	This course is designed for fire department personnel and students interested in understanding the fundamentals of fire prevention.
Goals:	1. This course is designed as an introductory tool, which will provide the student with a general overview of all aspects of the fire prevention arena and serve as a strong foundation as the student continues the Fire Science curriculum.

Description:	Introduction to the principles of fire prevention. Includes authority, responsibility and organization of fire prevention, inspection procedures and reports, fire hazard recognition, building construction, and occupancy classifications. Also includes site access and means of egress, water-based fire protection and water supply systems, portable extinguishers, special agent, extinguishing systems, and fire detection and alarm systems, plans review, hazardous materials and flammable and combustible liquids, and storage, handling, and use of other hazardous materials.
Textbooks:	None
Supplies:	None

Competencies and Performance Standards

1. Discuss the need, responsibilities and importance of fire prevention organizations.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can cite the history of major fires in America. • learner can discuss the importance of fire prevention. • learner can identify fire prevention organization responsibilities and functions. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> a. Cite the history of major fires in America. b. Discuss the importance of fire prevention. c. Identify fire prevention organization responsibilities and functions. 	
2. Cite the main points relating to the national fire problem.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can discuss the role of the government in fire prevention. • learner can describe 2 points relating to the national fire problem. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> a. Discuss the role of the government in fire prevention. b. Describe 2 points relating to the national fire problem. 	
3. Discuss the components of an inspection and the enforcement steps that are utilized.			
<i>Domain--Affective</i>	<i>Level--Organizing</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can describe the responsibilities and objectives of inspection. • learner can discuss the components of enforcement. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> a. Describe the responsibilities and objectives of inspection. b. Discuss the components of enforcement. 	
4. Describe the governmental division of authority relating to fire prevention laws, regulations and standards.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can discuss how fire prevention laws vary at the Federal, State, and local level. • learner can discuss how fire prevention regulations vary at the Federal, State, and local level. • learner can discuss how fire prevention regulations vary at the Federal, State, and local level. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> a. Discuss how fire prevention laws vary at the Federal, State, and local level. b. Discuss how fire prevention regulations vary at the Federal, State, and local level. c. Discuss how fire prevention regulations vary at the Federal, State, and local level. 	

5. Identify the difference between laws regulations and standards and cite examples of each.			
<i>Domain--Cognitive</i>	<i>Level--Synthesis</i>	<i>Importance--Important</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can compare fire prevention laws, regulations, and standards. • learner can contrast fire prevention laws, regulations, and standards. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> Compare fire prevention laws, regulations, and standards. Contrast fire prevention laws, regulations, and standards. 	
6. Discuss the main structural components and utilization of the various construction components pertain to fire safety.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Important</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can illustrate how building codes relate to fire prevention. • learner can describe fire prevention codes. • learner can examine common problems in existing construction methods and practices. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> Illustrate how building codes relate to fire prevention. Describe fire prevention codes. Examine common problems in existing construction methods and practices. 	
7. Discuss the components and utilization of the various types of fire extinguishment, protection and alarm systems.			
<i>Domain--Cognitive</i>	<i>Level--Analysis</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can identify the effectiveness, types and components of fire sprinkler systems. • learner can describe wet and dry fire standpipe systems. • learner can discuss the special hazard extinguishing systems. • learner can describe fire alarms and detection systems. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> Identify the effectiveness, types and components of fire sprinkler systems. Describe wet and dry fire standpipe systems. Discuss the special hazard extinguishing systems. Describe fire alarms and detection systems. 	

8. Discuss the major public education programs and activities and their overall objectives.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
<p>Criteria--Performance will be satisfactory when:</p> <ul style="list-style-type: none"> Identify the objectives of fire investigation and public education. learner can describe methods used in determining arson. learner can discuss how to prepare a case involving arson. learner can identify fire investigation tools. learner can demonstrate how to prepare investigative reports. learner can illustrate public education activities and special programs. 	<p>Conditions--Competence will be demonstrated:</p> <ul style="list-style-type: none"> on a written test. 	<p>Learning Objectives:</p> <ol style="list-style-type: none"> Identify the objectives of fire investigation and public education. Describe methods used in determining arson. Discuss how to prepare a case involving arson. Identify fire investigation tools. Demonstrate how to prepare investigative reports. Illustrate public education activities and special programs. 	
9. Describe the components of a fire prevention record and reporting system.			
<i>Domain--Cognitive</i>	<i>Level--Evaluation</i>	<i>Importance--Important</i>	<i>Difficulty--Medium</i>
<p>Criteria--Performance will be satisfactory when:</p> <ul style="list-style-type: none"> learner can demonstrate how to properly record and utilize data. learner can discuss the types of records retained for inspections, citations, building plans and investigations. learner can review record retention procedures. learner can describe how to utilize records to support legislation. 	<p>Conditions--Competence will be demonstrated:</p> <ul style="list-style-type: none"> on a written test. 	<p>Learning Objectives:</p> <ol style="list-style-type: none"> Demonstrate how to properly record and utilize data. Discuss the types of records retained for inspections, citations, building plans and investigations. Review record retention procedures. Describe how to utilize records to support legislation. 	
10. Discuss the goals and objectives of fire suppression personnel performing commercial occupancy fire prevention inspections.			
<i>Domain--Cognitive</i>	<i>Level--Synthesis</i>	<i>Importance--Important</i>	<i>Difficulty--Medium</i>
<p>Criteria--Performance will be satisfactory when:</p> <ul style="list-style-type: none"> learner can discuss the goals of a fire prevention program. learner can describe the objectives of a fire prevention program. learner can describe how to implement a fire prevention program. 	<p>Conditions--Competence will be demonstrated:</p> <ul style="list-style-type: none"> on a written test. 	<p>Learning Objectives:</p> <ol style="list-style-type: none"> Discuss the goals of a fire prevention program. Describe the objectives of a fire prevention program. Describe how to implement a fire prevention program. 	

11 Describe the major components required when implementing a fire prevention program/division.			
<i>Domain--Cognitive</i>	<i>Level--Analysis</i>	<i>Importance--Useful</i>	<i>Difficulty--Medium</i>
Criteria-- Performance will be satisfactory when: <ul style="list-style-type: none"> • learner can discuss code adoption and occupancy inspection programs. • learner can describe how zoning is instrumental in fire prevention program implementation. • learner can discuss company inspections. • learner can describe how to implement fire prevention program into public education programs. 	Conditions-- Competence will be demonstrated: <ul style="list-style-type: none"> • on a written test. 	Learning Objectives: <ol style="list-style-type: none"> Discuss code adoption and occupancy inspection programs. Describe how zoning is instrumental in fire prevention program implementation. Discuss company inspections. Describe how to implement fire prevention program into public education programs. 	

Types of Instruction

Classroom Presentation

Grading Policy

Evaluation Methods: Post-Test = 10% of the final grade. Students who do not take the Post-Test will have their grade dropped by one letter.

Grading Scale:

Grade	Requirement
A	100-90%
B	89-80%
C	79-70%
D	69-60%
F	Below 60%

Learning Plans

Learning Plan 1-- Learning Plan 1- 11

Overview: The purpose of these lessons is to discuss the fundamentals of fire prevention and acquaint the students with their role and responsibilities as fire fighters.

Competency: 1. Discuss the need, responsibilities and importance of fire prevention organizations.

Competency: 2. Cite the main points relating to the national fire problem.

Competency: 3. Discuss the components of an inspection and the enforcement steps that are utilized.

Competency: 4. Describe the governmental division of authority relating to fire prevention laws, regulations and standards.

Competency: 5. Identify the difference between laws regulations and standards and cite examples of each.

Competency: 6. Discuss the main structural components and utilization of the various construction components pertain to fire safety.

Competency: 7. Discuss the components and utilization of the various types of fire extinguishment, protection and alarm systems.

Competency: 8. Discuss the major public education programs and activities and their overall objectives.

Competency: 9. Describe the components of a fire prevention record and reporting system.

Competency: 10. Discuss the goals and objectives of fire suppression personnel performing commercial occupancy fire prevention inspections.

Competency: 11. Describe the major components required when implementing a fire prevention program/division.

Learning Activities:

_____ 1. READ and study assignments.

_____ 2. ASK/ANSWER question about procedures and techniques.

_____ 3. DISCUSS concepts, ideas, and issues with classmates.

_____ 4. PARTICIPATE in a small group discussion.

_____ 5. STUDY in pairs or groups.

Performance _____ 1. Discuss the lecture material and analyze ways to

Assessment Activities:

- _____ incorporate the material into daily practice.
- _____ **2.** Report your small discussion group's finding to the class.
- _____ **3.** Pass a written test on material covered.