

EASTERN ARIZONA COLLEGE
Arson Detection and Investigation
Course Design
2016-2017

Course Information

Division Allied Health
Course Number FSC 145
Title Arson Detection and Investigation
Credits 3
Developed by Chuck Jacobs/Revised by Martin deMasi
Lecture/Lab Ratio 3 Lecture/0 Lab

Transfer Status

ASU	NAU	UA
Non Transferable	CTE Departmental Elective	Non Transferable

Activity Course No
CIP Code 43.0203
Assessment Mode Pre/Post Test (10 Questions/10 Points)
Semester Taught Upon Request
GE Category None
Separate Lab No
Awareness Course No
Intensive Writing Course No

Prerequisites

None

Educational Value

This course is designed for firefighters and others interested in understanding the principles of arson detection and investigation. The goal of this course is to educate firefighters about arson and arson investigation to prepare them as witnesses, as necessary.

Description

Basic principles of arson investigation. Includes an introduction to fire investigation, laws, fire causes, determining point of origin, evidence, fire setters, case investigation and preparation, and courtroom demeanor and testimony.

Supplies

None

Competencies and Performance Standards

1. Recognize the loss of life and property from accidental and incendiary fires.

Learning objectives

What you will learn as you master the competency:

- a. Discuss the importance of arson investigation training to reduce such fires.
- b. Describe how fire loss affects communities at the local, state, and national level.
- c. Discuss fire occurrence and cause trends on a local and national level.

Performance Standards

Competence will be demonstrated:

- o by completing a written test

Criteria - Performance will be satisfactory when:

- o learner discusses the importance of arson investigation training to reduce such fires
- o learner describes how fire loss affects communities at the local, state, and national level
- o learner discusses fire occurrence and cause trends on a local and national level

2. Describe fire investigation techniques.

Learning objectives

What you will learn as you master the competency:

- a. Describe the responsibilities of a firefighter in fire investigations.
- b. Describe the proper methods to collect and preserve evidence.
- c. Describe the chain of custody involved in properly handling evidence.
- d. Discuss how laboratory analysis of evidence is conducted.
- e. Discuss the legal implications and considerations when dealing with arson or suspected arson.
- f. Describe fire investigation techniques and processes used to assist the relatively untrained investigator or attorney.

Performance Standards

Competence will be demonstrated:

- o by completing a written test

Criteria - Performance will be satisfactory when:

- o learner describes the responsibilities of a firefighter in fire investigations
- o learner describes the proper methods to collect and preserve evidence
- o learner describes the chain of custody involved in properly handling evidence
- o learner discusses how laboratory analysis of evidence is conducted
- o learner discusses the legal implications and considerations when dealing with arson or suspected arson
- o learner describes fire investigation techniques and processes used to assist the relatively untrained investigator or attorney

3. Discuss the laws and codes pertaining to fire investigation.

Learning objectives

What you will learn as you master the competency:

- a. Define the terms arrest, search, and seizures in relation to arson.
- b. Compare and contrast a felony and a misdemeanor.
- c. Discuss the insurance laws relating to arson.
- d. Describe other laws relating to fire prevention.
- e. Identify the principles of arson detection.

Performance Standards

Competence will be demonstrated:

- o by completing a written test

Criteria - Performance will be satisfactory when:

- o learner defines the terms arrest, search, and seizures in relation to arson
- o learner compares and contrasts a felony and a misdemeanor
- o learner discusses the insurance laws relating to arson
- o learner describes other laws relating to fire prevention
- o learner identifies the principles of arson detection

4. Demonstrate methods used in the investigation into the cause of a fire, determine defects responsible for a fire, and pinpoint the point of origin of a fire.

Learning objectives

What you will learn as you master the competency:

- a. Describe the steps or methods used in determining the point of origin of a fire.
- b. Identify defects that might be responsible for a fire.
- c. Describe the characteristics of a non-intentional fire.
- d. Discuss how and under what conditions persons intentionally set fires.

Performance Standards

Competence will be demonstrated:

- o by completing a written test

Criteria - Performance will be satisfactory when:

- o learner describes the steps or methods used in determining the point of origin of a fire
- o learner identifies defects that might be responsible for a fire
- o learner describes the characteristics of a non-intentional fire
- o learner discusses how and under what conditions persons intentionally set fires

5. Describe common fire behavior and the differences in ways they burn.

Learning objectives

What you will learn as you master the competency:

- a. Describe common behavior.
- b. Compare and contrast the different characteristics of fires and how they burn.

Performance Standards

Competence will be demonstrated

- by completing a written test

Criteria - Performance will be satisfactory when:

- learner describes common fire behavior
- learner compares and contrasts the different characteristics of fires and how they burn

6. Identify the agencies involved in arson investigating and describe the techniques used to achieve cooperation and information from these agencies.

Learning objectives

What you will learn as you master the competency:

- List the cooperative agencies that assist in arson investigation.
- Discuss the various sources of information that are used in arson investigations.

Performance Standards

Competence will be demonstrated:

- by completing a written test

Criteria - Performance will be satisfactory when:

- learner lists the cooperative agencies that assist in arson investigation
- learner discusses the various sources of information that are used in arson investigations

7. Describe how to collect different kinds of evidence, prepare, secure, and present this evidence in situations involving arson.

Learning objectives

What you will learn as you master the competency:

- Discuss how physical evidence is collected during an arson investigation.
- Compare and contrast circumstantial and direct evidence.
- Describe how note taking and reports should be properly written and documented.
- Describe how photography can be used as evidence.
- Discuss how to interview witnesses.
- Describe how to properly and accurately sketch and diagram the scene.
- Describe effective courtroom testimony and demeanor.

Performance Standards

Competence will be demonstrated:

- by completing a written test

Criteria - Performance will be satisfactory when:

- learner discusses how physical evidence is collected during an arson investigation
- learner compares and contrasts circumstantial and direct evidence
- learner describes how note taking and reports should be properly written and documented
- learner describes how photography can be used as evidence
- learner discusses how to interview witnesses
- learner describes how to properly and accurately sketch and diagram the scene
- learner describes effective courtroom testimony and demeanor

Types of Instruction

Classroom Presentation

Grading Information

Grading Rationale

Grades will be based on class participation and written tests.

Post Test	10%
Class participation	10%
Tests	30%
Final Test	50%

Grading Scale

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	0-59%