

EASTERN ARIZONA COLLEGE

Arson Detection and Investigation

Course Design
2010-2011

Course Information

Division Allied Health
Course Number FSC 145
Title Arson Detection and Investigation
Credits 3
Developed by Patricia A. Burke
Lecture/Lab Ratio 3 Lecture/0 Lab

Transfer Status

| ASU | NAU | UA |
|--------------------|--------------------|--------------------|
| Pending Evaluation | Pending Evaluation | Pending Evaluation |

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 fire department personnel and students interested in understanding the principles of arson detection and investigation. The goal of this course is prepare fire fighters to gain a background of 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 tremendous 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 effects the whole community at the local, state, and national level

Performance Standards

You will demonstrate your competence:

- When learner can discuss the importance of arson investigation training to reduce such fires
- When learner can describe how fire loss effects the whole community at the local, state, and national level

Your performance will be successful when:

- Learner completes written test

2. Describe the investigation techniques of the combustion process.

Learning objectives

What you will learn as you master the competency:

- a. Describe the responsibilities of 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 the investigation techniques of the combustion process used to assist the relatively untrained investigator or attorney

Performance Standards

You will demonstrate your competence:

- When learner can describe the responsibilities of firefighter in fire investigations
- When learner can describe the proper methods to collect and preserve evidence
- When learner can describe the chain of custody involved in properly handling evidence
- When learner can discuss how laboratory analysis of evidence is conducted
- When learner can discuss the legal implications and considerations when dealing with arson or suspected arson
- When learner can describe the investigation techniques of the combustion process used to assist the relatively untrained investigator or attorney

Your performance will be successful when:

- Learner completes written test

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 seizure 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 investigation
- e. Identify the principles of flame detection

Performance Standards

You will demonstrate your competence:

- When learner can define the terms arrest, search and seizure in relation to arson
- When learner can compare and contrast a felony and a misdemeanor
- When learner can discuss the insurance laws relating to arson
- When learner can describe other laws relating to fire investigation

Your performance will be successful when:

- Learner completes written test

4. Demonstrate methods use din the investigation into the cause of a fire, determine defects responsible for a fire, and pinpoint a firestarter.

Learning objectives

What you will learn as you master the competency:

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

Performance Standards

You will demonstrate your competence:

- When learner can describe the steps or methods used in determining a firestarter
- When learner can identify defects that might be responsible for a fire
- When learner can describe the characteristics of an accidental fire
- When learner can discuss how and under what conditions persons intentionally set fires

Your performance will be successful when:

- Learner completes written test

5. Describe how fire burns and the differences in ways they burn.

Learning objectives

What you will learn as you master the competency:

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

Performance Standards

You will demonstrate your competence:

- When learner can describe how fires burn
- When learner can compare and contrast the different characteristics of fires and how they burn

Your performance will be successful when:

- Learner completes written test

6. List and identify the agencies involved in arson investigation and describe the techniques used to achieve cooperation and information from these agencies.

Learning objectives

What you will learn as you master the competency:

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

Performance Standards

You will demonstrate your competence:

- When learner can list the cooperative agencies that assist in arson investigations
- When learner can discuss the various sources of information that are used in arson investigation

Your performance will be successful when:

- Learner completes written test

7. Collect different kinds of evidence, prepare it, keep it secured, and present the evidence in arson situations.

Learning objectives

What you will learn as you master the competency:

- a. Discuss how physical evidence is collected during an arson investigation
- b. Compare and contrast circumstantial and direct evidence
- c. Describe how note taking and reports should be properly written and documented
- d. Describe how photography can be used as evidence
- e. Discuss how to interview witnesses
- f. Describe how to properly and accurately sketch and diagram the scene

Performance Standards

You will demonstrate your competence:

- When learner can discuss how physical evidence is collected during an arson investigation
- When learner can compare and contrast circumstantial and direct evidence
- When learner can describe how note taking and reports should be properly written and documented
- When learner can describe how photography can be used as evidence
- When learner can discuss how to interview witnesses
- When learner can describe how to properly and accurately sketch and diagram the

scene

Your performance will be successful when:

- Learner completes written test

Types of Instruction

Classroom presentation

Grading Information

Grading Rationale

Grades will be based on class participation and written tests. The Post-Test will count as 10% of the final grade.

Grading Scale

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