



# Evidence and Documentation

## Course Plan

### Course Details

<b>Certification:</b>	Fire Investigator
<b>CTS Guide:</b>	Fire Investigator (February 2017)
<b>Description:</b>	This course provides information on scene documentation and evidence collection/preservation. Topics include photographing the scene, diagramming the scene, constructing investigative notes, processing evidence and establishing chain of custody, processing victims and fatalities, selecting evidence for analysis, maintaining a chain of custody, preparing a fire investigation report, and disposing of evidence. The 2014 edition of NFPA 1033 Standard for Fire Investigator Professional Qualifications is the basis for this course.
<b>Designed For:</b>	Fire investigators and law enforcement officers responsible for conducting fire investigations
<b>Prerequisites:</b>	Fire Investigation 1A: Basic Fire Investigation
<b>Corequisite:</b>	Introduction to Evidence (CFITrainer.net)
<b>Standard:</b>	Complete all activities Complete the summative test with a minimum score of 80%
<b>Hours:</b>	Lecture: 21:30 Activities: 10:00 Testing: 2:00
<b>Hours (Total):</b>	33:30
<b>Maximum Class Size:</b>	40
<b>Instructor Level:</b>	This courses requires one (1) primary instructor
<b>Instructor/Student Ratio:</b>	Lecture: 1:40
<b>Restrictions:</b>	None
<b>SFT Designation:</b>	CFSTES

### Required Resources

#### Instructor Resources

To teach this course, instructors need:

- *Fire Investigator Principles and Practice*, 4th Edition (2016), Jones and Bartlett  
**or**
- *Fire Investigator*, 2nd Edition, IFSTA
- *NFPA 921: Guide for Fire & Explosion Investigations*, Current Edition
- Fire scene scenarios
- Tools and equipment used by a fire investigator
- Evidence samples, collection materials, and logs
- Available documents for fire scene scenarios (e.g., prefire plans and inspection reports)
- Sample documents for constructing investigative notes
- Authority requirements for establishing a chain of custody
- Relevant protocols for processing victims and fatalities
- Judicial, statutory, or jurisdictional requirements for disposing evidence
- Sample case file
- Personal protective equipment

The following instructor resources are available online at

- Fire Investigator 1B required activities  
<http://osfm.fire.ca.gov/training/resources>:
- Physical Evidence Bulletins (Office of the Attorney General)  
<http://www.oag.ca.gov/ci/reference#peb>
- Evidence and Property Management Guide (POST)  
<http://lib.post.ca.gov/Publications/Evidence-Property%20Management%20Guide.pdf>
- Five Elements of Writing  
[http://ngl.cengage.com/assets/downloads/greatwi\\_pro0000000335/gw3\\_unit2.pdf](http://ngl.cengage.com/assets/downloads/greatwi_pro0000000335/gw3_unit2.pdf)

#### Student Resources

To participate in this course, students need:

- *Fire Investigator Principles and Practice*, 4<sup>th</sup> Edition (2016), Jones and Bartlett  
**or**  
*Fire Investigator*, 2<sup>nd</sup> Edition, IFSTA
- *NFPA 921: Guide for Fire & Explosion Investigations*, Current Edition
- Device capable of taking photographs (i.e., tablet or cell phone)
- Tablet or laptop computer
- Personal protective equipment

### Facilities, Equipment, and Personnel

The following facilities, equipment, or personnel are required to deliver this course:

- Standard learning environment or facility
- Writing board or paper conference pads
- Markers, erasers
- Computer or tablet with presentation or other viewing software
- Amplification devices
- Projector and screen
- Tools and equipment used by a fire investigator

### Unit 1: Introduction

#### Topic 1-1: Orientation and Administration

##### Terminal Learning Objective

At the end of this topic, a student will be able to identify facility and classroom requirements and identify course objectives, events, requirements, assignments, activities, resources, evaluation methods, and participation requirements in the course syllabus.

##### Enabling Learning Objectives

1. Identify facility requirements
  - Restroom locations
  - Food locations
  - Smoking locations
  - Emergency procedures
2. Identify classroom requirements
  - Start and end times
  - Breaks
  - Electronic device policies
  - Special needs and accommodations
  - Other requirements as applicable
3. Review course syllabus
  - Course objectives
  - Calendar of events
  - Course requirements
  - Student evaluation process
  - Assignments
    - Introduction to Evidence (CFITrainer.net) must be completed on-line as homework before the end of this class
    - 4 hours
    - Course completion certificate or transcript required
  - Activities
  - Required student resources
  - Class participation requirements

##### Discussion Questions

1. What are the course requirements?
2. How will you be evaluated?

##### Activities

1. To be determined by the instructor.

### Topic 1-2: Fire Investigator Certification Process

#### Terminal Learning Objective

At the end of this topic, a student will be able to identify the courses and requirements for Fire Investigator certification, and be able to describe the certification task book and testing process.

#### Enabling Learning Objectives

1. Identify the courses required for Fire Investigator certification
  - Fire Investigation 1A: Basic Fire Investigation
  - Fire Investigation 1B: Evidence and Documentation
  - Fire Investigation 1C: Preparation for Legal Proceedings
  - POST certified Interview and Interrogation #31445 (40 hours)
  - NWCG FI-210 Wildland Fire Origin and Cause Determination (38 hours)
2. Identify any other requirements for Fire Investigator certification
  - Experience [one (1) of the following two (2) options]
    - Have a minimum of two (2) year full-time, paid experience in a California fire department with the primary responsibility as a fire investigator
    - Or
    - Have a minimum of four (4) years volunteer or part-time, paid experience in a California fire department with the primary responsibility as a fire investigator
  - Investigate 20 fires, 10 must be structure fires, as the primary investigator and develop a complete fire investigation report
  - Be appointed to the rank or position of Fire Investigator
    - Performing in an acting capacity does not qualify
3. Describe the certification task book process
  - Complete all prerequisites and course work
  - Submit application and fees to request certification task book
  - Complete all job performance requirements included in the task book
  - Must have identified evaluator verify individual task completion via signature
  - Must have Fire Chief or authorized representative verify task book completion via signature
  - Must be employed by a California Fire Agency in the position prior to submitting completed task book to State Fire Training
4. Describe the certification testing process
  - Complete course work
  - Schedule online certification test
  - Schedule skills evaluation test

#### Discussion Questions

1. How many courses are there in the Fire Investigator certification track? What are they?
2. What is the minimum experience required for a full-time, paid fire investigator?

#### Activities

1. To be determined by the instructor.

### Unit 2: Scene Documentation

#### Topic 2-1: Photographing the Scene

##### Terminal Learning Objective

At the end of this topic, a student, given a fire scene, tools, and equipment, will be able to photograph the scene to accurately document and support scene findings.

##### Enabling Learning Objectives

1. Discuss the types of cameras (including video) and flash
2. Discuss the types of film, media, and flash available
3. Describe the strengths and limitations of cameras (including video), media, and flash
4. Describe the process of photographing the scene
5. Describe a photo log and its purpose
6. Use camera, flash, and accessories

##### Discussion Questions

1. What photographic issues would you encounter on a fire scene?
2. How would you approach the photographic documentation of a fire scene?
3. Why would you not use a personal camera or cell phone to photograph a fire scene?
4. What would you do with poor quality photographs?
5. What is important to photograph at a fire scene?

##### Activities

1. Activity 2-3-1: Scene Documentation

**CTS Guide Reference:** CTS 2-2

#### Topic 2-2: Diagramming the Scene

##### Terminal Learning Objective

At the end of this topic, a student, given a fire scene, tools, and equipment, will be able to diagram the scene and identify evidence, pertinent contents, significant patterns, and area(s) or point(s) of origin.

##### Enabling Learning Objectives

1. Describe symbols and legends used to clarify the diagram
2. Describe the types of evidence and patterns that need to be documented
3. Discuss formats for diagramming the scene
4. Sketch the scene
5. Perform basic drafting skills
6. Recognize evidence
7. Use observational skills

##### Discussion Questions

1. What is the difference between a sketch and a diagram?
2. What symbols and legends are required on a diagram?
3. What content should be included?
4. What is the importance of a diagram to a case?

### Activities

1. See Activity 2-3-1: Scene Documentation

**CTS Guide Reference:** CTS 2-1

### Topic 2-3: Constructing Investigative Notes

#### Terminal Learning Objective

At the end of this topic, a student, given a fire scene, available documents (e.g., prefire plans and inspection reports), and interview information, will be able to construct investigative notes that provide accurate documentation of the scene and represent complete scene findings.

#### Enabling Learning Objectives

1. Describe the relationship between notes, sketches or diagrams, and photos
2. Describe translating scene information into concise notes
3. Discuss using notes during report writing and legal proceedings
4. Use data-reduction skills
5. Take notes
6. Use observation and correlation skills

#### Discussion Questions

1. What are some important scene observations to include in your notes?
2. How detailed should your notes be in order to construct your report?
3. What are the pros and cons of retaining your notes after writing the report?
4. Can you legally destroy your notes after writing your report?

### Activities

1. See Activity 2-3-1: Scene Documentation

**CTS Guide Reference:** CTS 2-3

## Unit 3: Evidence Collection/Preservation

### Topic 3-1: Processing Evidence and Establishing Chain of Custody

#### Terminal Learning Objective

At the end of this topic, a student, given tools, equipment, and evidence collection materials, will be able to locate, document, collect, label, package, and store evidence to properly identify and preserve for use in testing, legal, or other proceedings and examinations, establish the chain of custody, and avoid cross-contamination and investigator-inflicted damage to evidentiary items.

#### Enabling Learning Objectives

1. Explain the impact of evidence collection on the investigation
2. Describe the authority requirements for establishing a chain of custody
3. Describe an evidence log and its purpose
4. Explain the types, capabilities, and limitations of tools and equipment used to locate evidence

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5. Describe the impact of removing evidentiary items on civil or criminal proceedings (exclusionary or fire-cause supportive evidence)
6. Discuss legal repercussions regarding evidence spoliation
7. Identify the types of laboratory tests available
8. Discuss packaging techniques and materials
9. Describe how to secure and store evidence
10. Recognize different types of evidence
11. Determine whether evidence is critical to the investigation

### Discussion Questions

1. How significant is a chain of custody?
2. How can you compromise the chain of custody?
3. Why is it important to leave space in a container of fire debris?
4. What is the importance of properly packaging evidence?
5. How do you properly mark an evidence container?

### Activities

1. To be determined by the instructor.

### Instructor Note

1. Refer to Physical Evidence Bulletins (Office of the Attorney General)

**CTS Guide Reference:** CTS 3-2

## Topic 3-2: Processing Victims and Fatalities

### Terminal Learning Objective

At the end of this topic, a student, given relevant protocols for the AHJ, tools, equipment, and appropriate personnel, will be able to process victims and fatalities to discover and preserve all evidence while utilizing proper procedures and following protocol.

### Enabling Learning Objectives

1. Recognize the types of evidence associated with fire victims and fatalities
2. Discuss evidence preservation methods
3. Use observational skills
4. Apply protocols to given situations

### Discussion Questions

1. What evidence would you collect from a victim?
2. How do you approach a fatality differently from a nonfatal fire scene?
3. What protocols does your jurisdiction have for a fatal fire?

### Activities

1. To be determined by the instructor.

### Instructor Notes

1. Having a guest lecturer from the Coroner's Office would be effective for this topic.

**CTS Guide Reference:** CTS 3-1



### Topic 3-3: Selecting Evidence for Analysis

#### Terminal Learning Objective

At the end of this topic, a student, given a fire scene, and information/evidence collected from the investigation, will be able to select evidence for analysis so the items support specific investigation needs.

#### Enabling Learning Objectives

1. Discuss the criteria for selecting evidence for analysis
2. Explain the purposes for submitting items for analysis
3. Identify the types of analytical services available
4. Describe the capabilities and limitations of the services performing the analysis
5. Evaluate the fire scene to determine forensic, engineering, or laboratory needs

#### Discussion Questions

1. Why submit evidence for analysis?
2. What types of evidence should be analyzed?
3. How does your evidence determine the type of analysis you would consider?

#### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-3

### Topic 3-4: Maintaining a Chain of Custody

#### Terminal Learning Objective

At the end of this topic, a student, given tools, equipment, and evidence tags, bags, or logs, will be able to maintain a chain of custody with written documentation for each piece of evidence.

#### Enabling Learning Objectives

1. Explain the rules of custody and transfer procedures
2. Describe methods of recording the chain of custody
3. Execute the chain of custody procedures
4. Accurately complete necessary documents

#### Discussion Questions

1. Where should you store evidence?
2. How do you store evidence?
3. What are the different methods of recording the chain of custody?

#### Activities

1. To be determined by the instructor.

**CTS Guide Reference:** CTS 3-4

### Topic 3-5: Preparing a Fire Investigation Report

#### Terminal Learning Objective

At the end of this topic, a student, given a case file, tools, equipment, and a specific audience, will be able to prepare a written report that accurately reflects the investigative findings, is concise, expresses the investigator's opinion, contains facts and data that the

investigator relies on in rendering an opinion, contains the reasoning of the investigator to reach each opinion, and meets the needs or requirements of the intended audience(s).

### Enabling Learning Objectives

1. Discuss the elements of writing
  - Purpose
  - Audience
  - Clarity
  - Unity
  - Coherence
2. Describe the typical components of a fire investigation report
  - Summary of events
  - Notification and response/chronology of events
  - Property description
  - Scene observations
  - Witness statements
  - Opinions and conclusions
  - All appropriate attachments
3. Explain how to convert investigative notes into a fire investigation report
4. Identify the types of audiences and their respective needs or requirements
5. Use writing skills
6. Analyze information
7. Determine the audience's needs or requirements

### Discussion Questions

1. How does a fire investigation report differ from other investigative reports?
2. What is the importance of good writing skills?
3. What is the purpose of a fire investigation report?
4. What should be included in the report? What should not be included?
5. How detailed should the report be?

### Activities

1. Activity 3-5-1: Fire Investigation Report

### Instructor Notes

1. Refer to the Five Elements of Writing

**CTS Guide Reference:** CTS 6-1

## Topic 3-6: Disposing of Evidence

### Terminal Learning Objective

At the end of this topic, a student, given judicial or statutory requirements, jurisdictional or agency requirements, and information/evidence collected from the investigation, will be able to dispose of evidence safely in compliance with jurisdictional or agency requirements.

### **Enabling Learning Objectives**

1. Discuss judicial or statutory requirements for disposal
2. Identify disposal services available
3. Describe common disposal procedures and problems
4. Use documentation skills

### **Discussion Questions**

1. How long do you keep evidence?
2. What are some options for disposing evidence?
3. Who may require notification before disposing of evidence?

### **Activities**

1. To be determined by the instructor

### **Instructor Note**

1. Refer to Evidence and Property Management Guide (POST)

**CTS Guide Reference:** CTS 3-5

## Time Table

Segment	Lecture Time	Activity/Skills Time	Total Unit Time
<b>Unit 1: Introduction</b>			
Topic 1-1: Orientation and Administration			
Lecture	0:30		
To be determined by the instructor			
Topic 1-2: Fire Investigator Certification Process			
Lecture	0:30		
To be determined by the instructor			
<b>Unit 1 Totals</b>	<b>1:00</b>	<b>0:00</b>	<b>1:00</b>
<b>Unit 2: Scene Documentation</b>			
Topic 2-1: Photographing the Scene			
Lecture	4:00		
Activity 2-3-1: Scene Documentation			
Topic 2-2: Diagramming the Scene			
Lecture	1:00		
Activity 2-3-1: Scene Documentation			
Topic 2-3: Constructing Investigative Notes			
Lecture	1:00		
Activity 2-3-1: Scene Documentation		4:00	
<b>Unit 2 Totals</b>	<b>6:00</b>	<b>4:00</b>	<b>10:00</b>
<b>Unit 3: Evidence Collection/Preservation</b>			
Topic 3-1: Processing Evidence and Establishing Chain of Custody			
Lecture	6:00		
To be determined by the instructor			
Topic 3-2: Processing Victims and Fatalities			
Lecture	2:00		
To be determined by the instructor			
Topic 3-3: Selecting Evidence for Analysis			
Lecture	2:00		
To be determined by the instructor			
Topic 3-4: Maintaining a Chain of Custody			
Lecture	1:00		
To be determined by the instructor			
Topic 3-5: Preparing a Fire Investigation Report			
Lecture	3:00		

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Segment	Lecture Time	Activity/Skills Time	Total Unit Time
Activity 3-5-1: Fire Investigation Report (in class and homework)		6:00 In class	
Topic 3-6: Disposing of Evidence			
Lecture	0:30		
To be determined by the instructor			
<b>Unit 3 Totals</b>	<b>14:30</b>	<b>6:00</b>	<b>20:30</b>
<b>Lecture, Activity, and Unit Totals:</b>	<b>21:30</b>	<b>10:00</b>	<b>31:30</b>

### Course Totals

Segment Type	Time
Total Lecture Time (LT)	21:30
Total Activity Time (AT)	10:00
Total Testing Time (TT)	2:00
<b>Total Course Time</b>	<b>33:30</b>