



5055 Santa Teresa Blvd  
Gilroy, CA 95023

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### Course Outline

**COURSE:** JFT 5B                      DIVISION: 50                      ALSO LISTED AS: JFT 220

TERM EFFECTIVE: Fall 2020                      CURRICULUM APPROVAL DATE: 04/14/2020

SHORT TITLE: FIRE INVESTIGA 1B

LONG TITLE: Fire Investigation 1B

<u>Units</u>	<u>Number of Weeks</u>	<u>Type</u>	<u>Contact Hours/Week</u>	<u>Total Contact Hours</u>
1	18	Lecture:	.8	14.4
		Lab:	1.48	26.64
		Other:	0	0
		Total:	2.28	41.04
		Total Learning Hrs:	69.84	

#### COURSE DESCRIPTION:

This 40 hour course provides information on scene safety, including post blast investigation. Topics include evidence recognition, documentation, and preservation including scene photography and trace evidence. Students will gain knowledge and insight related documentation of findings including case reports, insurance information and other resources available to the investigator. Course methodology includes presentations, case studies, group exercises, focused discussions and written assignments. PREREQUISITE Fire Investigation 1A.

#### PREREQUISITES:

Completion of JFT 5A, as UG, with a grade of C or better.

#### COREQUISITES:

CREDIT STATUS: D - Credit - Degree Applicable

#### GRADING MODES

L - Standard Letter Grade

REPEATABILITY: N - Course may not be repeated

#### SCHEDULE TYPES:

- 02 - Lecture and/or discussion
- 03 - Lecture/Laboratory
- 04 - Laboratory/Studio/Activity

## **STUDENT LEARNING OUTCOMES:**

By the end of this course, a student should:

1. Recognize potentially hazardous conditions during scenario, and take the appropriate action and protection to mitigate the danger. Distinguish a scene analysis that determines the personal protective equipment necessary to establish a safe environment for both fire fighters and bystanders
2. Compose an accurate investigative report on fire fatalities and injuries including scene investigation of a mock fire investigation.

## **CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS**

Curriculum Approval Date: 04/14/2020

Content: (14 hours)

### I. Introduction to Fire Investigation 1B

#### A. Fire Investigation 1A review

1. Short quiz to review material of 1A
2. Group activity to complete Activity Sheet and provide greater understanding of 1B

Lab Content:

### II. Motives (1 hour)

#### A. Six basic motives frequently encountered

1. Pyromania
2. Revenge/Spite
3. Excitement
4. Vandalism
5. Profit - Fraud
6. Crime Concealment

#### B. Intent defined

1. Extremist

### III. Scene Safety for Investigators (2 hours)

#### A. Structure collapse and stability

- B. Damaged structural components
- C. Increased load
- D. Hazards associated with utilities
- E. Criminal activities

#### F. Equipment

#### G. Procedures to follow

#### H. Assessing other scene hazards

### IV. Safety Considerations for Bystanders (1 hour)

#### A. Investigation scene

### V. Post-Blast Investigation (2 hours)

- A. Agencies involved in Post-Blast investigation
  - 1. Local law enforcement
  - 2. Fire service
  - 3. Local bomb squads
  - 4. CDF & Fire Protection/Office of State Fire Marshall Arson-Bomb Unit
  - 5. Federal Bureau of Investigation
  - 6. Bureau of Alcohol, Tobacco & Firearms
  - 7. U.S. Postal Inspection Service
  - 8. Allied agencies
- B. Inherent dangers at post-blast scenes
- C. Explosion Basics
  - 1. Types of explosives
  - 2. Effects of an explosion
  - 3. Improvised explosive devices
- D. Scene Investigation
- E. Evidence from victims
- VI. Evidence (.5 hour)
  - A. Scene Photography
    - 1. Photographing the fire scene
    - 2. Documentation and storage of photographs and negatives
    - 3. Photographs for court use
    - 4. Video/Digital photography
- VII. Evidence Recognition, Documentation, and Preservation (2 hours)
  - A. Evidence
    - 1. Evidence defined
    - 2. Theory of transfer
    - 3. Uses of evidence
    - 4. Types of evidence
    - 5. Roles evidence an play
    - 6. Rules of evidence
    - 7. Evidence required to prove arson
    - 8. Major problems with arson evidence
    - 9. Recognition of evidence
  - B. Evidence documentation
    - 1. Evidence collection (general principles)
    - 2. Collection of volatile or flammable liquids and/or residues
    - 3. Chain of evidence
    - 4. Storage of collected fire scene evidence
  - C. Time requirements for retaining evidence
    - 1. Evidence is usually retained until the statute of limitations has expired
    - 2. Local policy must be consulted
  - D. Laboratory Services
    - 1. Crime scene assistance
    - 2. Laboratory examinations

- VIII. Trace Evidence (2 hours)
  - A. Trace Evidence Definition
  - B. Fingerprints
    - 1. Latent
    - 2. Patent
  - C. Tool Marks
  - D. Footprints and Tire Tracks
  - E. Fibers and Hairs
  - F. Blood and Body Fluids
  - G. Soil Samples
  - H. Glass Particles
  - I. Firearms
  - J. Volatile Flammables
  - K. Explosive Residue
  - L. Paint
- IX. Introduction to Interviewing (1 hour)
  - A. Interviews versus Interrogations
  - B. The Miranda Rule
    - 1. Procedure for advising suspects
    - 2. Custody
    - 3. Miranda rule for adults and for juveniles
- X. Techniques of Interviewing (2 hours)
  - A. Interviewing techniques
    - 1. Listening
    - 2. Formal training
    - 3. Work place
    - 4. Primary purpose of interviews
    - 5. Qualities of the interviewer
    - 6. Observations
    - 7. Attitude and conduct of interviewer
    - 8. Tactics
    - 9. Retention of notes and tapes
  - B. The interview
    - 1. Persons usually interviewed
    - 2. conducting the interview
    - 3. Opening statements
    - 4. Place of interview
    - 5. Interview one person at a time
    - 6. Attitude of the investigator
    - 7. Completeness of information gathered
    - 8. Documenting statements
    - 9. Interviewing with a n interpreter

- C. Preliminary investigation
  - 1. Formulate a team attitude with the victim
  - 2. Victim stabilization
  - 3. Building rapport
  - 4. Conducting the interview
- D. Follow-up interviewing using cognitive interview technique
  - 1. Cognitive Interviewing Technique is a four-step interview process
    - a. Reconstruct circumstances
    - b. Report everything
    - c. Recount the event in a different sequence
    - d. Report the events from a different perspective
- E. Interview techniques used specifically for Children
  - 1. Interview preparation instructions
  - 2. Reconstructing the circumstances
  - 3. Telling the story in a different sequence
  - 4. Misleading witnesses
  - 5. If children cannot recall information
- F. Introduction to interrogation techniques
  - 1. Review the crime scene scenario and the arrest of the suspects
  - 2. Techniques can be used by detectives in an intensive interrogation
  - 3. Legal ramifications of interrogations
    - a. custodial versus noncustodial interrogations
    - b. Miranda warnings
    - c. Those you plan to interrogate about a crime they committed
    - d. Need not give Miranda warnings to a suspect that you are interrogating over the phone.
  - 4. Custody means formal arrest
- G. The Confrontation Interrogation Technique
  - 1. Proven successful in situations where the guilt of a suspect is fairly certain
  - 2. Psychological domination
  - 3. Confrontation statement
  - 4. Handling denials
  - 5. Transitional phase
  - 6. Theme development
  - 7. Overcoming objectives
  - 8. Using negative alternative questions
  - 9. Expanding and clarifying the confession
  - 10. Written confession
- H. Using confrontation interrogation in the field
  - 1. Field officers may use elements of the Confrontation Interrogation Technique for field interrogations
  - 2. Handling suspects at the crime scene where the suspect may be susceptible to confession because of emotions
  - 3. Most important aspect of interrogating suspects in the field is not to argue with their alibis.

- XI. Introduction to Juvenile Law (1 hour)
  - A. Juvenile Law
  - B. Temporary Custody
  - C. Constitutional Rights
  - D. Other Laws
- XII. Fatalities and Injuries (2 hours)
  - A. Scene Investigation
  - B. Fire Death or Injury
    - 1. Death or injury discovered at fire scene
    - 2. Death or injury as a result of escaping or fleeing fire
    - 3. Death or injury as a result of involvement in fire suppression
    - 4. Death or injury may occur at a structure, vehicle, or outdoor fire scene
    - 5. Regardless of type or scene of fire, investigation must be systematic
    - 6. Person involved
      - a. civilian
      - b. firefighter
  - C. Fire Scene/Crime Scene - Two Areas to Investigate
    - 1. Area of origin
    - 2. Area where fatality discovered
    - 3. Body in place
    - 4. Body moved
    - 5. Serious injury occurred
  - D. Investigative Considerations
    - 1. Are the remains human?
    - 2. Identify of the victim
    - 3. Cause of death
    - 4. Manner of death
    - 5. Was person alive and conscious at time of fire?
    - 6. Was death due to the fire or only associated with the fire?
  - E. Cause of Fire, Cause and Manner of Death
    - 1. Cause of fire
    - 2. Cause of death
    - 3. Time frames - mode involved
    - 4. Manner of death
    - 5. Linkage of fire cause, cause of death, and manner of death
  - F. Team Investigative Effort
    - 1. Many disciplines and professionals involved in the investigation
    - 2. Location of body
    - 3. Preliminary assignment of tasks
  - G. Scene Investigation - Body Location
    - 1. Initial actions
    - 2. Confirm that scene is safe
    - 3. Overhaul of scene will be done by the investigative team
    - 4. Leave the body in position found

- H. Post Mortem Examination of Fire Victims
  - 1. Medical examiner or coroner's involvement
  - 2. Medical examiner's procedures
  - 3. Conference with medical examiner
- I. Hospitalized Victims Procedures
  - 1. Emergency room personnel obligations
  - 2. Evidence recovery
- XIII. Mechanism of Injury (2 hours)
  - A. Environment
    - Hazardous and Hostile Overview
      - 1. Structure failure
      - 2. Falls
      - 3. Heat
      - 4. Soot and smoke
      - 5. Low oxygen environment
      - 6. Toxic environment
  - B. Structure Failure
  - C. Falls
  - D. Heat
  - E. Inhalation
- Injuries
  - F. Low Oxygen Environment
  - G. Toxic Environment - Toxic Gases
- XIV. Introduction to Case Reports (2 hours)
  - A. Report Writing
  - B. Field Notes
  - C. Written Investigation Reports
    - 1. Preliminary reports
    - 2. Case reports
    - 3. Follow-up or supplemental reports
  - D. Case Report Formats
  - E. Case Report Categories
    - 1. Violations/Policy
    - 2. Summary
    - 3. Suspect or Subject
    - 4. Victim (s) and Witness (s)
    - 5. Evidence
    - 6. Physical Condition or Conditions
    - 7. Vehicles or Equipment
    - 8. Property
    - 9. Narrative/Investigation
    - 10. Attachments
  - F. General Provisions
  - G. Supplemental Reports

- XV. Insurance Information for the Fire Investigator (1.5 hour)
  - A. Basic Insurance Policies
  - B. Insurance Company Personnel
  - C. Responsibilities of the insured after loss occurs
  - D. Responsibilities of the Adjuster
    - 1. Investigates the claim
    - 2. Requests further investigation of claim if warranted
  - E. Investigative considerations based on types of insurance coverage
  - F. Establishing Fire Loss
  - G. Reporting Agencies
  - H. Release of Information to Authorized Agency - Insurance

Code, Section 1875.1

- XVI. Resources (1.5 hour)

- A. Criminal Investigation
- B. Criminal History
  - 1. Records
  - 2. Local
  - 3. State Agencies
  - 4. Federal Agencies
  - 5. Courts
- C. Information Services

- XVII. Building (1.5 hours)

Construction and Terminology

- A. Construction Drawings
  - B. Construction Drawing Views
  - C. Building Construction Classifications
  - D. Building Construction Features that effect Fire Spread
  - E. The Effects of Building Systems on the Spread of Fire
  - F. Methods Used to Identify the Need for expert resources
    - 1. Electrical or mechanical system
    - 2. Fire prevention system
- XV. Review and Certification Exam (1 hour)

#### **METHODS OF INSTRUCTION:**

Lecture, discussion and demonstration will serve as the medium of instruction. Regular assignments will be made for out-of-class study and research. Quizzes and a final exam as well as individual guidance will be provided as required.

#### **OUT OF CLASS ASSIGNMENTS:**

Required Outside Hours: 28

Assignment Description:

Review techniques demonstrated in class on interrogation and interview techniques.

Review procedures for properly conducting an investigation at the scene of a fire fatality

Review notes and read next chapter to prepare for upcoming quiz



**METHODS OF EVALUATION:**

Writing assignments

Percent of total grade: 25.00 %

Compose an accurate, complete documentation for a fire investigation report with photographs that contain pertinent information relating to the incident scene. Describe the steps taken to preserve the evidence for courtroom use. Differentiate between types of evidence, and be familiar with the Theory of Transfer. Describe the appropriate containers used when storing evidence, to be evaluated by the instructor for skills taught in course.

Problem-solving assignments

Percent of total grade: 25.00 %

Compare the terms "interview" and "interrogation", the legal differences between them , and the Miranda rule and its importance to questioning while conducting an interview and determine specific activities and observations of your suspect, scenario to be evaluated by the instructor for skills taught in course.

Skill demonstrations

Percent of total grade: 25.00 %

While conducting an investigation at the scene of a fire fatality scenario and completing a written report. The investigator must determine the relationship between the fire cause and the cause of death. to be evaluated by instructor.

Objective examinations

Percent of total grade: 25.00 %

Multiple Choice; True/False

**REPRESENTATIVE TEXTBOOKS:**

Verified by: Doug Atcherman. Required: SFT. Fire Investigation 1B Student Manual. OSFM, 2014. Or other appropriate college level text.. California : California State Fire Marshal ,2020.

Reading Level of Text, Grade: 12

**ARTICULATION and CERTIFICATE INFORMATION**

Associate Degree:

CSU GE:

IGETC:

CSU TRANSFER:

Transferable CSU, effective 199870

UC TRANSFER:

Not Transferable

**SUPPLEMENTAL DATA:**

Basic Skills: N

Classification: Y

Noncredit Category: Y

Cooperative Education:

Program Status: 1 Program Applicable

Special Class Status: N

CAN:

CAN Sequence:

CSU Crosswalk Course Department: JFT

CSU Crosswalk Course Number: 5B

Prior to College Level: Y

Non Credit Enhanced Funding: N

Funding Agency Code: Y

In-Service: N

Occupational Course: C

Maximum Hours: 1

Minimum Hours: 1

Course Control Number: CCC000135806

Sports/Physical Education Course: N

Taxonomy of Program: 213300