Course Outline

COURSE: JFT 5A  DIVISION: 50  ALSO LISTED AS:  
TERM EFFECTIVE: Fall 2017  CURRICULUM APPROVAL DATE: 10/24/2016

SHORT TITLE: FIRE INVESTIGA 1A  
LONG TITLE: Fire Investigation 1A

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<th>Number of Weeks</th>
<th>Type</th>
<th>Contact Hours/Week</th>
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COURSE DESCRIPTION:

This 40 hour course provides an introduction and basic overview of fire scene investigation and investigation tools required to collect, document, and preserve evidence. The focus of this course will be on providing information about the fire scene indicators and determining the fire's origin.

PREREQUISITE: JFT 8, Fire Fighter I Academy 1. State Fire Marshall certified basic firefighting academy diploma or equivalent as determined by the Dean of Academy Instruction. NOTE: Approval of equivalent training is not a guarantee state regulatory or licensing agencies will also grant equivalency. 2. Prior to beginning this course students must already be familiar with, and be able to demonstrate all of the skills listed below. These will not be taught in the course; rather, they will be the starting point for advanced officer training that builds upon them. These minimum knowledge and skill levels are regarding: Familiarity with penal codes, Familiarity with health codes, Familiarity with structural fires, Familiarity with vehicular fires, Familiarity with wildland fires.

PREREQUISITES:

Completion of JFT 8, 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

10/27/2016
STUDENT LEARNING OUTCOMES:
1. Demonstrate an effective and accurate fire investigation (structural, vehicular, wildland, and explosion) in which the fire scene is properly documented and the ignition source is identified.
Measure of assessment: In-Class Scenarios, Skills Exam
Year assessed, or planned year of assessment: Fall 2016

CONTENT, STUDENT PERFORMANCE OBJECTIVES, OUT-OF-CLASS ASSIGNMENTS
Curriculum Approval Date: 10/24/2016

Lecture Content:
I. The Role of the Fire Investigator
A. Fire Loss in the United States
B. Why Fires are Investigated
C. Fire Department Organization
D. Public Sector Fire Investigators
E. Agencies Involved
F. Investigator Ethics
G. Investigator Organization
H. Professional Qualifications
II. Legal Aspects of Fire Investigation
A. Michigan v Tyler
B. Michigan v. Clifford
C. Authority to Investigate
D. Inspection Warrant
E. Recommended Consent to Search Form
III. Expert Testimony
A. The Frye Opinion
B. Frye v. United States
C. Depositions
D. Expert Testimony
IV. Arson Law
A. The Criminal Aspects of the Investigation
B. Criminal Act of Burning
C. Local Codes and Ordinances
D. Court Cases and General Intent
E. People v. Fry
F. People v. Atkins

Lab Content:
I. Fire Scene Documentation
A. Fire Scene Documentation
B. Narrative
C. Witness Statements
D. Evidence
E. Photographs
F. Diagram
II. Point of Origin Determination
A. Point of Origin Defined
B. Relationship between “Point of Origin” and “Fire Cause”
C. “Overhaul” Defined
D. Scene examination Procedure for Point of Origin Identification

III. Accidental Ignition Sources
A. Introduction
B. Types of Fires Causes
C. Owners and/or Occupants may Misrepresent the Facts of an Accidental Fire
D. Major Accidental Fire Causes

IV. Electrical Ignition Sources
A. Home and Commercial Electrical Protective Devices
B. Aluminum Wiring and Accidental Fires
C. Sources of Investigation Assistance
D. Examining Fires of Electrical Origin
E. Questions
F. Static Electricity as an Accidental Fire

V. Arson Fire Indicators
A. Indicators of Arson Fires
B. Multiple Fires
C. Trailers
D. Presence of Flammable Liquids
E. Use of Common Equipment and / or Appliances
F. Structural Damage/content Irregularities Prior to the Fire
G. Fire Location and Damage
H. Absence of all Accidental Fire Causes
I. Indicators as “Evidence” of Arson

VI. Incendiary Devices
A. Incendiary Devices Defined
B. Incendiary Devices are often Constructed from Readily Available Materials
C. Electrical Incendiary Devices
D. Mechanical Incendiary Devices
E. Chemical Incendiary Devices
F. Examples of Common Incendiary Devices
G. Incendiary Devices Designed to be Thrown
H. Design and Construction

VII. Structure Fire Investigation
A. Tool Selection
B. On Arrival
C. Basic Information to be Recorded at Incident Scene
D. Secure Incident Scene
E. Fire Scene Responsibility in Fatal Fire
F. Exterior Examination of Structure
G. Examine Interior of Structure
H. Interviewing
I. Incident Scene Investigation for Commercial Occupancies

VIII. Vehicle Fire Investigation
A. Probability of Accidental Vehicle Fires
B. Most Modern Vehicles are Designed to Provide Basic Safety from Fire
C. Vehicles Subject to Arson
D. Fire Scene Examination
E. Accomplices and Witnesses
F. Vehicle Fires other than Automobiles
G. Ownership and Vehicle registration Numbers
H. Motives and Vehicle Arson
I. New Vehicle Emission Control and Fuel System

VIX. Wildland Fire Investigation
A. Wildland Fire Causes
B. Fire Scene Examination
C. Follow-Up Investigation
D. Assistance from other Agencies
E. Evidence Collection

VX. Explosions
A. Explosions
B. Basic types of Explosions
C. Nature of Explosions

OUT OF CLASS ASSIGNMENTS:
Required Outside Hours:
Assignment Description: Reading from class text

METHODS OF INSTRUCTION:
Lecture, discussion and demonstrations/simulations will serve as the medium of instruction. Audio-visual aids will be utilized as they facilitate meaningful instruction.

METHODS OF EVALUATION:
Writing assignments
Percent of total grade: 25.00 %
Percent range of total grade: 25 % to 30 % Other: Written Investigation Reports
Problem-solving assignments
Percent of total grade: 25.00 %
Percent range of total grade: 25 % to 30 % Homework Problems; Quizzes; Exams
Skill demonstrations
Percent of total grade: 25.00 %
Percent range of total grade: 25 % to 30 % Class Performance/s
Objective examinations
Percent of total grade: 25.00 %
Percent range of total grade: 25 % to 30 % Multiple Choice; True/False

REPRESENTATIVE TEXTBOOKS:
Required Representative Textbooks
Reading Level of Text, Grade: 12 Verified by: Doug Achterman

ARTICULATION and CERTIFICATE INFORMATION
Associate Degree:
CSU GE:

10/27/2016
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: 5A
Prior to College Level: Y
Non Credit Enhanced Funding: N
Funding Agency Code: Y
In-Service: N
Occupational Course: C
Maximum Hours:
Minimum Hours:
Course Control Number: CCC000340173
Sports/Physical Education Course: N
Taxonomy of Program: 213300