**STATE OF NEW JERSEY  
DEPARTMENT OF COMMUNITY AFFAIRS**

**DIVISION OF FIRE SAFETY**

**FIRE INSPECTOR CERTIFICATION COURSE**



**Module 18**

**Fire Investigation**

*in cooperation with*

**Kean University Fire Safety Training Program**



**Time:** 3 hours

**Teaching/Learning Level:** *Cognitive, knowledge, comprehension.*

## Learning/Teaching Aids:

* Syllabus
* Board/easel pad
* Chalk/markers
* PC/laptop
* Projection unit
* Projection screen
* PowerPoint presentation
* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* New Jersey Uniform Fire Code NJAC 5:71-3 et seq.
* Student Manual

**Behaviors to Foster**

Encourage students to listen carefully, take notes and to actively participate by asking questions and offering experiences that will foster discussion during lectures.

**Tasks:**

* Provide a fundamental understanding of initial fire cause and origin investigation.
* Reviewing the duties associated with fire investigation.
* Provide a fundamental understand of the appropriate format and content of a fire cause and origin report.
* Providing an understanding of the importance fire investigations play in identifying potential fire hazards and the means to eliminate them.

**Given in a classroom setting:**

* The student handout
* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* New Jersey Uniform Fire Code NJAC 5:71-3 et seq.
* PowerPoint presentation

**Standards:**

* NJAC 5:70-1 et seq.
* NJAC 5:71-3 et seq.
* NFPA 921: Guide for Fire and Explosion Investigations
* NFPA 12A-09 Halon 1301 Fire Extinguishing Systems

**Prerequisite Knowledge:** Module 16

**Prerequisite Skills:** Ability to listen effectively; follows directions; take notes; and retain knowledge.

## Resources/References:

* New Jersey Uniform Fire Code NJAC 5:70-1 et seq.
* New Jersey Uniform Fire Code NJAC 5:71-3 et seq.
* Student Manual
* PowerPoint presentation.
* Fire Investigator, 2nd Edition, IFSTA
* Introduction to Fire Origin and Cause, 4th Edition, IFSTA

## Attention: (Call to Order)

**Motivation: (State Need to Know)**

(A reminder to instructors; it is best if the instructor uses an example from a recent or current event that is pertinent to the lesson. In this case you can inform the student of a recent fire wherein the origin and cause indicated a direct relationship with a violation under the UFC.)

## Student Performance Objective (SPO):

* SPO-1 The student will know the requirements of the UFC as they apply to fire investigations.
* SPO-2 The student will have a basic understanding of fire investigation techniques and issues.
* SPO-3 The student will understand the limit of the Fire Inspector’s legal authority to conduct fire investigations within the NJ UFC and other related NJ laws.

## Enabling Objectives (EO):

* EO 1-1-1 Working from the PowerPoint presentation the instructor will review the sections of the UFC related to fire investigation duties.
* EO 1-1-2 Working from the PowerPoint presentation the instructor will review basic fire investigation techniques and how a fire inspector can assist a fire investigation unit by providing knowledge of a premise gained during a fire inspection.

## Overview/Main Points:

* Fire inspectors must have knowledge of the provisions of the UFC that relate to the investigation of fires, particularly the record keeping of reports related to fire deaths and fires in LHUs and Educational occupancies.
* The fire inspector must have a basic understanding of fire investigation techniques and the importance fire investigations play in shaping model codes.

## Initial Instructions:

Prior to this lesson the instructor shall have reviewed the lesson plan for this module, the PowerPoint presentation with notes, reference materials and the student handouts to refresh the instructor’s knowledge on this topic.

## Opener: Call to order; start with a motivator (need to know) related to objectives and the lesson; state objectives and main points.

**Teaching points**

(See instructor’s notes for PowerPoint file)

## Summary:

Summarize the material covered in this lesson by reviewing the SPOs listed and the Main Points during the Evaluation. At the end of the Summary/Evaluation remind the students of the next class date/time and the homework that must be completed to successfully participate in class and comprehend the material provided during the next lesson.

## EVALUATION

**Oral Review:** Utilizing the SPOS and Main Points, orally assess the students’ comprehension of the material provided during this lesson.

**Other Evaluation:** *(If there are assigned quizzes for this lesson, state that fact here.)*

Instructors may use course quizzes, or create and use lesson quizzes and other learning reinforcements. Quizzes are diagnostic and may be given as in-class group assignments to generate discussion or as home assignments and used as review prior to starting the next session.

**HOMEWORK**

# Readings

Case laws that impact the fire inspector’s role and responsibility in fire investigation:

* Michigan vs. Tyler
* Michigan vs. Clifford
* Daubert vs. Dow
* Kumo Tire vs. Carmichael

**APPENDIX**

# LEVEL OF INSTRUCTION

|  |  |
| --- | --- |
| **Cognitive**   1. Knowledge 2. Comprehension 3. Application 4. Analysis 5. Synthesis 6. Evaluation | **Psychomotor**   1. Perception 2. Set 3. Guided Response. 4. Mechanism 5. Complex Overt Response 6. Adaptation 7. Origination |

### DESCRIPTIONS

**Cognitive:**

1. Knowledge: remembers, recalls; the lowest learning level. Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states.
2. Comprehension: grasps meaning, interprets material, estimates future trends; the lowest level of understanding. Converts, defends, gives examples, distinguishes, estimates, explains, extends, generalizes, infers, paraphrases, predicts, rewrites, summarizes.
3. Application: uses material in new and concrete situations, applies rules, methods, concepts, principles, laws, and theories; requires higher understanding level. Changes, computes, demonstrate, solve, discover, manipulate, modify, operate, predict, prepare, uses, produces, relates.
4. Analysis: breaks material into components to understand structural organizational; higher intellectual level than comprehension and application requiring understanding of both structure and content. Breaks down, diagrams, differentiates, infers, discriminates, relates, distinguishes, identifies, illustrates, outlines, points out, selects, separates, subdivides.
5. Synthesis: able to put parts together to form a new whole, stresses creative behaviors, emphasizes forming new patterns or structures. Categorizes, combines, complies, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, relates, revises, reconstructs, reorganizes, writes/rewrites, summarizes, tells.
6. Evaluation: able to judge value of material for a given purpose based on definite criteria. Highest in cognitive hierarchy as this contains elements of all other categories plus conscious value judgments based on clearly defined criteria. Appraises, compares, concludes, relates, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, summarizes, supports.

**Psychomotor:**

1. Perception: uses organs or sense to obtain cues to guide motor activity. Chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects, separates
2. Set: readiness to take a particular type of action; includes mental, physical or emotional set. Begins, displays, explains, moves, shows, proceeds, reacts, responds, starts, volunteers.
3. Guided Response: early stages in learning a complex skill; includes imitation, trial and error. Assembles, builds, calibrates, displays, constructs, dismantles, dissects, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches, works.
4. Mechanism: performs acts where learned responses have become habitual and moves with confidence and proficiency; same as guided response.
5. Complex Overt Response: skillful motor performance of complex movement. Performs proficiently, quickly, smoothly, accurately with minimum energy, without hesitation. Same as guided response.
6. Adaptation: skills are so well developed that movement patterns can be modified to fit special requirements or meet problem situations. Adapts, alters, changes, rearranges, reorganizes, revises, varies.
7. Origination: creates new movement patterns to fit a unique situation or problem. Emphasizes creativity based on highly developed skills. Arranges, combines, composes, constructs, designs, originates