



New Hampshire Department of Safety
Division of Fire Standards and Training and Emergency Medical Services
33 Hazen Drive, Concord, NH 03305 1-800-371-4503 or 603-223-4200 FAX: 603-271-1091

FIRE STANDARDS AND TRAINING COMMISSION

CURRICULUM DEVELOPMENT AND APPROVAL GUIDE

FIRE INVESTIGATOR NFPA 1033 (2022)

Approved by the New Hampshire Fire Standards and Training Commission

Commission Approval

Date:

Curriculum Information Sheet

Name of Certification:
(including NFPA Standard)

Fire Investigator

NFPA Standards #: 1033 Edition Date: 2022 Next Edition: 2027

Type of Certificate:

NH Certification: _____ Pro-Board Certified X

Certificate of Attendance: _____

**Curriculum Committee
Approval**

Date: _____

**ProBoard/Certification
requirements:**

*Please attached all job sheets
and NFPA matrix*

Question bank validation: In Process
Number of exam questions: 100
Job Sheets updated and formatted: Yes
NFPA Matrix: Yes

Reference Material for Students:

Include edition numbers

NFPA® 1033 Standard for Professional Qualifications for Fire Investigator (2022)
NFPA® 921 Guide for Fire and Explosion Investigations (2021)
Fire Investigator: Principles and Practice, *Most Recent Edition**
FSTEMS Policies and Procedures

* It is the recommendation of the 2023 Fire Investigator Visiting Committee that the textbook be updated in conjunction with updates to NFPA 921 that do not change NFPA 1033 JPRs in order to allow the course to present the most relevant information for legal case presentation and witness expertise.

Class Size: Min: 12 Max: 16 **Number of Curriculum Hours:** 106

Module Breakdown:

| | | |
|--|--------|----------|
| Analyzing the Incident | Hours: | <u>2</u> |
| Basic Fire Science & Dynamics | Hours: | <u>4</u> |
| Building Systems | Hours: | <u>2</u> |
| Case Report Layout | Hours: | <u>2</u> |
| Classification of Fire Cause | Hours: | <u>2</u> |
| Complex Investigations | Hours: | <u>2</u> |
| Curriculum Vitae (CV's) | Hours: | <u>2</u> |
| Documenting the Fire Scene | Hours: | <u>2</u> |
| Electricity and Fire | Hours: | <u>4</u> |
| Evidence Collection Practical | Hours: | <u>2</u> |
| Expert Witness Challenges | Hours: | <u>2</u> |
| Explosions / Explosives | Hours: | <u>2</u> |
| Fire & Explosion Death and Injuries | Hours: | <u>2</u> |
| Fire Dynamics - Burn Demonstration Practical | Hours: | <u>2</u> |
| Fire Ignition Testing - Hypothesis Testing Practical | Hours: | <u>4</u> |
| Fire Investigation Practical Exercise | Hours: | <u>4</u> |
| Fire Investigation Practical Exercise | Hours: | <u>4</u> |
| Fire Origin & Cause Determination | Hours: | <u>4</u> |

| | | |
|--|--------|---|
| Fire Patterns | Hours: | 2 |
| Fire Patterns / Fire Scene Practical | Hours: | 4 |
| Fuel Gas System Practical | Hours: | 2 |
| Fuel Gas Systems & Public Utilities | Hours: | 2 |
| Human Behavior and Fire | Hours: | 2 |
| Incendiary Fires | Hours: | 2 |
| Interviewing / Practical | Hours: | 4 |
| Investigating Explosion Scenes Practical | Hours: | 2 |
| Investigation Final Project Presentations | Hours: | 2 |
| Legal Considerations | Hours: | 4 |
| Motor Vehicle, Equipment, and Marine Fires | Hours: | 4 |
| Physical Evidence | Hours: | 6 |
| Planning the Investigation | Hours: | 2 |
| Presenting your case: Prosecutors, Grand Jury, Courtroom Testimony | Hours: | 2 |
| Professional Organizations, Development, Professional Standards | Hours: | 2 |
| Report Writing | Hours: | 4 |
| Review of Team Reports with program staff | Hours: | 2 |
| Safety for Fire Investigators | Hours: | 2 |
| Sources of Information | Hours: | 2 |
| Wildland Fire Investigations and Practical | Hours: | 4 |

Prerequisites for Applicants:

| |
|--|
| Copy of current CV or resume with application |
| Letter from the Chief of Department or agency head outlining the following: |
| Current fire investigation responsibilities, OR |
| They are being assigned fire investigation duties, AND |
| They are assigned to the class as their place of duty for the duration of the course, ensuring no scheduling conflicts |
| Proof of completion for the following IAAI online certifications within 12 months of enrollment: |
| NFPA 1033 and Your Career |
| CFIT - NFPA 1033 and your career. |
| CFIT - Practical application of the relationship between NFPA 1033 and 921 |
| CFIT - The Scientific Method for Fire and Explosion Investigations. |
| CFIT - Charting Your Path in Fire Investigation |

Prerequisites for Instructors:

| |
|---|
| Certification as a Fire Investigator by the IAAI, NAFI, ATF&E, OR |
| Currently working as fire investigator with a minimum of 5 years' experience processing and operating on fire scenes, OR |
| A subject matter expert in the field of fire investigations (Engineer, Attorney, Private Investigator, Forensic Lab personnel, etc.). |

Requirements for Testing:

| |
|-----------------------|
| All modules completed |
|-----------------------|

Completion of the following IAAI online certifications

CFIT - Documenting the Event

CFIT - Effective Investigations & Testimony.

CFIT - Ethics and the Fire Investigator.

CFIT - Fire Protection Systems

CFIT - Fundamentals of Residential Building Construction.

CFIT - Introduction to Evidence

CFIT - Introduction to Fire Dynamics and Fire Modeling

CFIT - Investigating Fatal Fires.

CFIT - Investigating Motor Vehicle Fires.

CFIT - Lithium-Ion Battery Fires

CFIT - Physical Evidence at the Fire Scene

CFIT - Using Resources to Validate Your Hypothesis

CFIT - Writing the initial Origin & Cause Report.

**What type of factor determines
successful completion:**

Attach sample schedule of proposed training program:

Yes ☒ No ☐

Attach roster of all visiting committee members

Yes ☒ No ☐

Public Hearing Dates Daytime: _____

Evening: _____

60-day comment period window _____

Please attach all public comment material to this document

**Preliminary Commission
Approval**

Date: _____

Please attach the following:

- ProBoard Test matrix
- Test stations
- Practical exam testing explanation
- Sample schedule
- Visiting Committee members

**NEW HAMPSHIRE FIRE STANDARDS AND
TRAINING / EMERGENCY MEDICAL SERVICES**

Certified Fire Investigator

Practical Evaluation Skill Package

NFPA 1033 – Standard for the Professional Qualifications for
Fire Investigator, 2022 Edition



This package shall be provided to each student at the beginning of the program during orientation. Each practical skills proctor shall also be given this skills package. FOR PROGRAM USE ONLY



INSTRUCTIONAL JPR VERIFICATION

NHFA - CERTIFIED FIRE INVESTIGATOR

Student Full Name: _____

This Instructional JPR Verification Sheet is to be used in conjunction with the New Hampshire Fire Academy Fire Investigator Skill Sheets. These skills meet all the requirements of NFPA 1033, Standard for Professional Qualifications for Fire Investigator, 2022 edition. Each of these skills should be taught and assessed during the course. This form must be submitted by the Instructor for Certification.

Practical Examination for Certification: Skills testing will be conducted using a minimum of 25% of the JPRs listed below. The skills will be randomly drawn by the Certification Staff and administered by an approved evaluator after all training hours have been completed. For successful completion of the practical examination, a minimum 70% competency (including critical points) is required for certification. Please refer to the Certification Criteria for this level for a complete listing of the certification requirements.

| Skill Sheet | Primary Task | JPR(s) Covered |
|--------------------------|--|-----------------------------------|
| 01 | Secure the Fire Ground / Conduct Exterior Survey | 4.2.1, 4.2.2 |
| 02 | Interior Survey / Interpret Fire Patterns | 4.2.3, 4.2.4, 4.2.5 |
| 03 | Examine & Remove Fire Debris | 4.2.6 |
| 04 | Reconstruct the Area of Origin | 4.2.7 |
| 05 | Inspect the Performance of Building Systems | 4.2.8 |
| 06 | Discriminate the Effects of Explosion | 4.2.9 |
| 07 | Documenting the Scene | 4.3.1, 4.3.2, 4.3.3 |
| 08 | Evidence Collection / Preservation | 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5 |
| 09 | Witness Interview | 4.5.1, 4.5.2, 4.5.3, 4.6.4 |
| 10 | Gather Investigative File; Establish Motive | 4.6.1, 4.6.2, 4.6.4, 4.6.5 |
| 11 | Coordinate Expert Resources | 4.6.3 |
| 12 | Prepare a Written Report | 4.7.1 |
| 13 | Express Investigative Findings | 4.7.2, 4.7.3 |
| Course Location: | | Course Dates: |
| Instructor Printed Name: | | Instructor Signature: |
| Candidate Printed Name: | | Candidate Signature: |



SECURE THE FIRE GROUND / EXTERIOR SURVEY

Reference source: NFPA 1033 – Sections 4.2.1, 4.2.2, 2022 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 01

The student, given marking devices and tools, shall secure the fire ground / scene and conduct an exterior survey of the building or area so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from all restricted areas, any evidence is identified and protected from damage, or destruction, all potential ingress or egress are identified, any hazards at the scene are identified, and any fire effects or burn patterns are identified.

Expected time to complete skill(s) is **60 minutes**

| Performance Steps | Test | | Retest | |
|--|------------|--------------------------------------|---|------|
| Safely performs the following steps | P | F | P | F |
| 1. Uses marking devices to secure investigative area – CRITICAL POINT | | | | |
| 2. Unauthorized persons are kept from restricted areas - CRITICAL POINT | | | | |
| 3. Identifies and protects any evidence – CRITICAL POINT | | | | |
| 4. Performs a size up of the fire ground for hazards | | | | |
| 5. Performs a size up of the structural condition | | | | |
| 6. Identifies means of ingress and egress | | | | |
| 7. Verbalizes the damage from the effects of fire | | | | |
| 8. Interprets burn patterns on exterior of building | | | | |
| Candidate must successfully perform 6/8 steps including all CRITICAL POINTS | / 8 | | / 8 | |
| Evaluator Notes: | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | Pass | Fail |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | |

| Performance Steps | | Test | | Retest | |
|--|--|--------------------------------------|--|------------|---|
| Safely performs the following steps | | P | F | P | F |
| 1. Assesses structural conditions and identifies any hazards, and offers solutions – CRITICAL POINT | | | | | |
| 2. Verbalizes the damage and effects of the fire | | | | | |
| 3. Discovers the impact of fire suppression efforts on fire flow and heat propagation | | | | | |
| 4. Evaluates protected areas to determine the presence and/or absence of contents | | | | | |
| 5. Interprets the effects of burning characteristics on different types of materials | | | | | |
| 6. Distinguishes the impact of different fuel loads | | | | | |
| 7. Evaluates fuel trailers | | | | | |
| 8. Analyzes and synthesizes the information | | | | | |
| Candidate must successfully perform 6/8 steps including all CRITICAL POINTS | | / 8 | | / 8 | |
| Evaluator Notes: | | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | | |
| | | | Pass | Fail | |
| <u>Re-Test</u> Evaluator Print Name & Signature: | | | Overall Skill Sheet <u>Re-Test</u> Score: _____ | | |
| | | | Pass | Fail | |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | | |

| Performance Steps | | Test | | Retest | |
|--|--|--------------------------------------|---|------------|---|
| Safely performs the following steps | | P | F | P | F |
| 1. Removes fire debris | | | | | |
| 2. Searches for fire cause evidence and ignition sources | | | | | |
| 3. Identifies all potential ignition sources – CRITICAL POINT | | | | | |
| 4. Collects and preserves evidence – CRITICAL POINT | | | | | |
| 5. Identifies all potential accidental sources of ignition – CRITICAL POINT | | | | | |
| 6. Ensures evidence is not contaminated or damaged | | | | | |
| Candidate must successfully perform 5 / 6 steps including all CRITICAL POINTS | | / 6 | | / 6 | |
| Evaluator Notes: <div style="height: 100px;"></div> | | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | | |
| | | | Pass | Fail | |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | | |
| | | | Pass | Fail | |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | | |



DISCRIMINATES THE EFFECTS OF EXPLOSIONS

Reference source: NFPA 1033 – Sections 4.2.9, 2022 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 06

The candidate, given standard equipment, shall discriminate the effects of explosions from other types of damage so that an explosion is identified, and any evidence is preserved.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | Test | | Retest | |
|---|------------|------|---|------|
| Safely performs the following steps | P | F | P | F |
| 1. Identifies explosion effects on glass, walls, foundations, and other building materials | | | | |
| 2. Distinguishes between high and low order explosions and the effects – CRITICAL POINT | | | | |
| 3. Analyzes the damage caused | | | | |
| 4. Documents the blast zone and the explosions origin | | | | |
| Candidate must successfully perform 3 / 4 steps including all CRITICAL POINTS | / 4 | | / 4 | |
| Evaluator Notes: | | | | |
| | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | Pass | Fail |
| Candidate Print Name & Signature: | | | Candidate: Print Name or Candidate # | |
| <p>Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern.</p> | | | | |



DOCUMENTING THE SCENE

Reference source: NFPA 1033 – Sections 4.3.1, 4.3.2, 4.3.3, 2022 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 07

The candidate, given standard tools, shall diagram and photograph the scene so that the scene is accurately represented and depicted. Pertinent contents, significant patterns and the area and point of origin is identified. Investigative notes shall be constructed to provide accurate documentation of the scene, and shall be transcribed into the final report.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | Test | | Retest | |
|---|------------|--------------------------------------|---|------|
| Safely performs the following steps | P | F | P | F |
| 1. Sketches the scene accurately – CRITICAL POINT | | | | |
| 2. Identifies on the sketch pertinent contents, significant patterns & area(s) of origin | | | | |
| 3. Demonstrates basic drafting skills (include scene features and measurements) | | | | |
| 4. Identifies and documents evidence, locations, etc. | | | | |
| 5. Uses flash camera to photographically document the scene – CRITICAL POINT | | | | |
| 6. Utilizes data reduction skills to reduce information to concise notes – CRITICAL POINT | | | | |
| Candidate must successfully perform 5 / 6 steps including all CRITICAL POINTS | / 6 | | / 6 | |
| Evaluator Notes: | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | Pass | Fail |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | |
| <p>Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern.</p> | | | | |



EVIDENCE COLLECTION AND PRESERVATION

Reference source: NFPA 1033 – Sections 4.4.1, 4.4.2, 4.4.3, 4.4.4, 4.4.5, 2022 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 08

The candidate, given protocols, standard tools, information, and regulations shall identify / discover, document, label, package, and preserve evidence. Selects evidence for analysis, maintains chain of custody for evidence, and dispose of evidence.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | Test | | Retest | |
|--|------------|--------------------------------------|---|------|
| Safely performs the following steps | P | F | P | F |
| 1. Applies evidence protocols to assigned situation – CRITICAL POINT | | | | |
| 2. Identifies / discovers evidence using observational skills | | | | |
| 3. Identifies different types of evidence & determines if critical to investigation | | | | |
| 4. Properly packages all evidence so that it is preserved - CRITICAL POINT | | | | |
| 5. Correctly labels evidence so that it is properly identified – CRITICAL POINT | | | | |
| 6. Selects evidence for analysis | | | | |
| 7. Evaluates scene to determine if a forensic, engineering, laboratory, or other specialists is needed. | | | | |
| 8. Executes chain of custody procedures – CRITICAL POINT | | | | |
| 9. Completes necessary documents, takes accurate notes – CRITICAL POINT | | | | |
| Candidate must successfully perform 7 / 9 steps including all CRITICAL POINTS | / 9 | | / 9 | |
| Evaluator Notes: | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | Pass | Fail |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | |



WITNESS INTERVIEW

Reference source: NFPA 1033 – Sections 4.5.1, 4.5.2, 4.5.3, 4.6.4, 2022 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 09

The candidate, given an incident scenario, shall obtain information regarding the overall investigation from witnesses, first responders, occupants, and property owners through verbal communications.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | Test | | Retest | |
|--|-------------|--------------------------------------|---|------|
| Safely performs the following steps | P | F | P | F |
| 1. Develops an interview plan – CRITICAL POINT | | | | |
| 2. Develops a list of questions for specific individuals | | | | |
| 3. Evaluates existing data to help develop questions | | | | |
| 4. Conducts interview | | | | |
| 5. Adjusts interviewing strategies based on deductive reasoning | | | | |
| 6. Interprets verbal and nonverbal communications | | | | |
| 7. Applies legal requirements – CRITICAL POINT | | | | |
| 8. Evaluates interview information | | | | |
| 9. Correlates data, takes accurate notes of interview – CRITICAL POINT | | | | |
| 10. Evaluates source information | | | | |
| Candidate must successfully perform 9 / 10 steps including all CRITICAL POINTS | / 10 | | / 10 | |
| Evaluator Notes: | | | | |
| | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | Pass | Fail |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | |



GATHER INVESTIGATIVE FILE / ESTABLISH MOTIVE

Reference source: NFPA 1033 – Sections 4.6.1, 4.6.2, 4.6.4, 4.6.5, 2014 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 10

The candidate, given all available information, shall gather reports and records, and evaluate the investigative file so that areas for further investigation are identified, the relationship between the gathered documents and information is interpreted.

The candidate, given investigative findings, shall establish a motive, and or opportunity, and formulate an opinion concerning the origin, cause, and responsibility for the fire.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | | Test | | Retest | |
|---|--|---|---|----------------------------------|---|
| Safely performs the following steps | | P | F | P | F |
| 1. Identify the reports / documents necessary for the investigation: (PD, FD, insurance policies, financial records, deeds, private investigator reports, expert reports, witness photos, videos, etc.) – CRITICAL POINT | | | | | |
| 2. Evaluates the information for accuracy | | | | | |
| 3. Correlates the information | | | | | |
| 4. Implements the chain of custody – CRITICAL POINT | | | | | |
| 5. Organizes reports and documents | | | | | |
| 6. Discovers discrepancies in information – CRITICAL POINT | | | | | |
| 7. Reviews financial analysis concerning motive, if available. | | | | | |
| 8. Interprets fire scene information and evidence to establish motive / opportunity – CRITICAL POINT | | | | | |
| Candidate must successfully perform 6 / 8 steps including all CRITICAL POINTS | | / 8 | | / 8 | |
| Evaluator Notes: | | | | | |
| Evaluator Print Name & Signature: | | Date | | Overall Skill Sheet Score: _____ | |
| | | | | Pass Fail | |
| Re-Test Evaluator Print Name & Signature: | | Overall Skill Sheet Re-Test Score: _____ | | | |
| | | Pass Fail | | | |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | | |



COORDINATE EXPERT RESOURCES

Reference source: NFPA 1033 – Sections 4.6.3, 2014 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 11

The candidate, given the investigative file, shall coordinate expert resources so that the experts competencies are matched to the specific investigative needs.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | | Test | | Retest | |
|--|--|--------------------------------------|---|---|------|
| Safely performs the following steps | | P | F | P | F |
| 1. Identifies the applicable expert resource needed – CRITICAL POINT | | | | | |
| 2. Questions the experts relative to their qualifications | | | | | |
| 3. Develops a utilization plan for the use of the expert resources | | | | | |
| Candidate must successfully perform ALL steps including all CRITICAL POINTS | | / 3 | | / 3 | |
| Evaluator Notes: | | | | | |
| Evaluator Print Name & Signature: | | Date | | Overall Skill Sheet Score: _____ | |
| | | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | | | Overall Skill Sheet Re-Test Score: _____ | |
| | | | | Pass | Fail |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | | |



PREPARE A WRITTEN REPORT

Reference source: NFPA 1033 – Sections 4.1.2, 4.7.1, 2014 Edition

NHFA - CERTIFIED FIRE INVESTIGATOR

SKILL SHEET FINV – 12

The candidate, given investigative findings, shall prepare a written report so that the report accurately reflects the investigative findings.

Expected time to complete skill(s) is 60 minutes

| Performance Steps | Test | | Retest | |
|--|------------|---|----------------------------------|------|
| Safely performs the following steps | P | F | P | F |
| 1. Analyzes the information needed for report | | | | |
| 2. Identifies the needs / requirements of the reader | | | | |
| 3. Demonstrates proper writing skills | | | | |
| 4. Prepares a written report given the investigative findings | | | | |
| 5. Documents search techniques | | | | |
| 6. Minimal grammatical, or spelling errors | | | | |
| 7. Uses proper format with the typical components of a written report | | | | |
| Candidate must successfully perform 5 / 7 steps including all CRITICAL POINTS | / 7 | | / 7 | |
| Evaluator Notes: | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | |
| | | | Pass | Fail |
| Re-Test Evaluator Print Name & Signature: | | Overall Skill Sheet Re-Test Score: _____ | | |
| | | Pass Fail | | |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | |

| Performance Steps | | Test | | Retest | |
|--|--|--------------------------------------|---|------------|---|
| Safely performs the following steps | | P | F | P | F |
| 1. Reviews file and prepares for the proceedings | | | | | |
| 2. Identifies the needs of the audience | | | | | |
| 3. Correlates the findings | | | | | |
| 4. Demonstrates communication and listening skills | | | | | |
| 5. Differentiates facts from opinion | | | | | |
| 6. Determines accepted procedures, practices and etiquette during legal proceedings. | | | | | |
| CRITICAL POINT | | | | | |
| Candidate must successfully perform 5 / 6 steps including all CRITICAL POINTS | | / 6 | | / 6 | |
| Evaluator Notes: | | | | | |
| Evaluator Print Name & Signature: | | Date | Overall Skill Sheet Score: _____ | | |
| | | | Pass | Fail | |
| Re-Test Evaluator Print Name & Signature: | | | Overall Skill Sheet Re-Test Score: _____ | | |
| | | | Pass | Fail | |
| Candidate Print Name & Signature: | | Candidate: Print Name or Candidate # | | | |
| Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the identified steps. Notify the evaluator at ANY time that you have a safety concern. | | | | | |

Fire Investigator Schedule Overview

Week 1

Monday
👤 Orientation

No Class

No Class

No Class

No Class

Week 2

🌐 INDEPENDENT STUDY

Week 3

Monday
👤 Fire Science
📖 Burn Demo

Tuesday
👤 Building Systems
👤 Fuel Gas Systems

Wednesday
👤 Electricity & Fire
👤 Human Behavior

Thursday
👤 Physical Evidence

Friday
👤 Determination
👤 Cause

Week 4

🌐 INDEPENDENT STUDY

Week 5

Monday
📖 Wildland
👤 Failure Analysis

Tuesday
📖 Explosives
👤 Safety

Wednesday
👤 Incendiary Fires
👤 Complex Fires
👤 Interviewing

Thursday
👤 Planning
📖 Investigation

Friday
📖 Investigation
Testing

Week 6

Monday
📖 Ignition
👤 Reports

No Class

No Class

No Class

No Class

Week 7

🌐 INDEPENDENT STUDY

Week 8

Monday
👤 Expert Witness
👤 Presentations

No Class

No Class

No Class

No Class

Week 9

Monday
👤 Certification Exam
👤 Presentations

No Class











No Class

No Class















No Class

Key: 🌐 Online Delivery 👤 Classroom Delivery 📖 Practical Delivery

Investigator Detailed Course Schedule

| Module | Date & Time | Location | Assignments and Activities |
|----------------------------|--|----------|--|
| Week 1 | | | |
| |  Online | | Online Activities <ul style="list-style-type: none"> CFIT — NFPA 1033 and your career. CFIT — The Scientific Method for Fire and Explosion Investigations. CFIT — Ethics and the Fire Investigator. CFIT — Practical application of the relationship between NFPA 1033 and 921. |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Program Orientation Legal Considerations |
| Week 2 | | | |
| |  Online | | Online Activities <ul style="list-style-type: none"> CFIT — Introduction to Evidence. CFIT — Physical Evidence at the Fire Scene. CFIT — Documenting the Event. CFIT — Introduction to Fire Dynamics and Fire Modeling. |
| Week 3 | | | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Basic Fire Methodology Basic Fire Science Fire Patterns Basic Fire Development (Burn Demonstrations) |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Building Systems Fuel Gas Systems & Public Utilities  Fuel Gas Practical |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Electricity and Fire Fire Related Human Behavior Sources of Information |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Physical Evidence Evidence Practical Quiz |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | | Topics / Activities <ul style="list-style-type: none"> Fire Origin Determination Fire Cause Determination Classification of Fire Cause Analyzing the Incident for Cause and Responsibility |
| Week 4 | | | |
| |  Online | | Online Activities <ul style="list-style-type: none"> CFIT — Investigating Fatal Fires. CFIT — Investigating Motor Vehicle Fires. CFIT — Fundamentals of Residential Building Construction. CFIT — Fire Protection Systems. |

Investigator Detailed Course Schedule

| Module | Date & Time | Location | Assignments and Activities |
|----------------------------|--|--|----------------------------|
| Week 5 | | | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities  Wildland Fire Investigations / Practical <ul style="list-style-type: none">Failure Analysis and Analytical Tools | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities <ul style="list-style-type: none">Explosions  Explosion / Explosives Practical <ul style="list-style-type: none">Fire & Explosion Death and InjuriesSafety for Fire InvestigatorsAppliance Fires | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities <ul style="list-style-type: none">Incendiary FiresManaging Complex Fire InvestigationsInterviewing | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities <ul style="list-style-type: none">Planning the InvestigationCase Layout  Fire Investigation Scene Practical | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities  Fire Investigation Practical Exercise / Testing | |
| Week 6 | | | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities  Fire Ignition Testing <ul style="list-style-type: none">Report Writing | |
| Week 7 | | | |
| |  Online | Online Activities <ul style="list-style-type: none">CFIT — Writing the initial Origin & Cause Report.CFIT — Effective Investigations & Testimony. | |
| Week 8 | | | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities <ul style="list-style-type: none">Curriculum Vitae (CV)Expert Witness ChallengesPresenting Your Case to Prosecutors & Grand JuriesGroup Project Review | |
| Week 9 | | | |
| Mon, Aug 14 0800 - 1700 |  NHFA & EMS Classrooms 5 & 6 | Topics / Activities <ul style="list-style-type: none">Final Certification ExamInvestigation Final Project Presentations | |

This schedule represents a tentative sequence of instruction and is subject to change.



NEW HAMPSHIRE DEPARTMENT OF SAFETY

Division of Fire Standards and Training & Emergency Medical Services

Evaluation Methodology Matrix for Fire Investigator (NFPA®1033, 2022)

| Standard | Methodology | Evaluation Details |
|--|-------------|---|
| 4.1 General. | | |
| <p>4.1.7* In order to successfully complete the tasks identified in the JPRs of Sections 4.2 through 4.7, the fire investigator shall remain current in the subjects listed as "requisite knowledge" as they relate to fire investigations, which include the following:</p> <p>(1) Fire science:</p> <ul style="list-style-type: none"> (a) Fire chemistry (b) Thermodynamics (c) Fire dynamics (d) Explosion dynamics <p>(2) Fire investigation:</p> <ul style="list-style-type: none"> (a) Fire analysis (b) Fire investigation methodology (c) Fire investigation technology (d) Evidence documentation, collection, and preservation (e) Failure analysis and analytical tools <p>(3) Fire scene safety:</p> <ul style="list-style-type: none"> (a) Hazard recognition, evaluation, and basic mitigation procedures (b) Hazardous materials (c) Safety regulations <p>(4) Building systems:</p> <ul style="list-style-type: none"> (a) Types of construction (b) Fire protection systems (c) Electricity and electrical systems (d) Fuel gas systems | Psychomotor | <p>Skill Sheet FINV-12</p> <p>Skill Sheet FINV-13</p> |
| <p>4.2* Scene Examination. Duties shall include inspecting, evaluating, and analyzing the fire scene or evidence of the scene, and conducting a comprehensive review of documentation generated during the examination(s) of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, material(s) ignited, and action or activity that brought the ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.</p> | | |



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|--|-------------|---|
| 4.2.1 Secure the fire ground, given marking devices, sufficient personnel, and special tools and equipment, so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from restricted areas and all evidence or potential evidence is protected from damage or destruction. | Psychomotor | Students are provided all equipment during the Fire Investigation Scene Practical (Week 5, Day 4) |
| (A) Requisite Knowledge. Fire ground hazards, types of evidence, and the importance of fire scene security, evidence preservation, and issues relating to spoliation. | Cognitive | |
| (B) Requisite Skills. Use of marking devices. | Psychomotor | Fire Investigation Scene Practical (Week 5, Day 4) |
| 4.2.2 Conduct an exterior survey, given standard equipment and tools, so that evidence is identified and preserved, fire damage is interpreted and analyzed, hazards are identified to avoid injuries, accessibility to the property is determined, and all potential means of ingress and egress are discovered. | Process | Students are provided all equipment during the Fire Investigation Scene Practical (Week 5, Day 4) |
| (A) Requisite Knowledge. The types of building construction and the effects of fire on construction materials, types of evidence commonly found in the perimeter, evidence preservation methods, the effects of fire suppression, fire behavior and spread, fire patterns, and a basic awareness of the dangers of hazardous materials. | Cognitive | |
| (B) Requisite Skills. Ability to assess fire ground and structural condition, observe the damage from and effects of the fire, and interpret and analyze fire patterns. | Process | Fire Investigation Scene Practical (Week 5, Day 4) |
| 4.2.3 Conduct an interior survey, given standard equipment and tools, so that areas of potential evidentiary value requiring further examination are identified and preserved, the evidentiary value of contents is determined, and hazards are identified in order to avoid injuries. | Process | Students are provided all equipment during the Fire Investigation Scene Practical (Week 5, Day 4) |



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| (A) Requisite Knowledge. The types of building construction and interior finish and the effects of fire on those materials, the effects of fire suppression, fire behavior and spread, evidence preservation methods, fire patterns, effects of building contents on fire growth, the relationship of building contents to the overall investigation, weather conditions at the time of the fire, and fuel moisture. | Cognitive | |
| (B) Requisite Skills. Ability to assess structural conditions, observe the damage and effects of the fire, discover the impact of fire suppression efforts on fire flow and heat propagation, and evaluate protected areas to determine the presence and/or absence of contents. | Process | Fire Investigation Scene Practical (Week 5, Day 4) |
| 4.2.4 Interpret and analyze fire patterns, given standard equipment and tools and some structural or content remains, so that each pattern is identified and analyzed with respect to the burning characteristics of the material involved, the stage of fire development, the effects of ventilation within the context of the scene, the relationship with all patterns observed, and the understanding of the methods of heat transfer that led to the formation of the patterns identified and analyzed, and the sequence in which the patterns were produced is determined. | Process | Students are provided all equipment during the Fire Investigation Scene Practical (Week 5, Day 4) |
| (A) Requisite Knowledge. Fire dynamics, including stages of fire development; methods of heat transfer; compartment fire development; the interrelationship of heat release rate (HRR), form, and ignitability of materials; and the impact and effects of ventilation on the creation of the fire patterns. | Cognitive | |
| (B) Requisite Skills. Ability to interpret and analyze the effects of burning characteristics of the fuel involved and the effects of ventilation on different types of materials. | Process | Fire Investigation Scene Practical (Week 5, Day 4) |



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| 4.2.5 Interpret and analyze fire patterns, given standard equipment and tools and some structural or content remains, so that fire development, fire spread, and the sequence in which fire patterns were developed (i.e., sequential pattern analysis) are determined; methods and effects of suppression are analyzed; fire patterns and effects indicating a hypothetical area or areas of origin are recognized and tested; false or refuted hypothetical areas of origin are eliminated; and all fire patterns are tested against the data, such that the area(s) of origin is correctly identified. | Process | Students are provided all equipment during the Fire Investigation Scene Practical (Week 5, Day 4) |
| (A) Requisite Knowledge. Fire development and spread based on fire chemistry, fire dynamics including compartment fire development, fire spread, fire suppression effects, building construction, electricity and electrical systems, and fuel gas systems. | Cognitive | |
| (B) Requisite Skills. Ability to analyze variations of fire patterns on different materials with consideration given to HRR, form, ignitability of the fuels involved, and the effects of ventilation; ability to understand the impact of different types of fuel packages on pattern creation; and ability to analyze and correlate information. | Process | Fire Investigation Scene Practical (Week 5, Day 4) |
| 4.2.6 Examine and remove fire debris, given standard or, if necessary, special equipment and tools, so that fire patterns and fire effects concealed by debris are discovered and analyzed; all debris within the potential area(s) of origin is checked for fire cause evidence; potential ignition source(s) is identified; and evidence is preserved without investigator-inflicted damage or contamination. | Process | Students are provided all equipment during the Physical Evidence class (Week 3, Day 4) and the Fire Investigation Scene Practical (Week 5, Day 4) |
| (A) Requisite Knowledge. Basic understanding of ignition processes, characteristics of ignition sources, and ease of ignition of fuels; debris-layering techniques; use of tools, equipment, and special equipment during the debris search; types of fire cause evidence commonly found; understanding evidence spoliation and techniques to avoid it; and evidence collection and preservation methods and documentation. | Cognitive | |



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| (B) Requisite Skills. Ability to employ search techniques that further the discovery of fire cause evidence and ignition sources, use search techniques that incorporate documentation, and collect and preserve evidence. | Psychomotor | Physical Evidence class (Week 3, Day 4) Fire Investigation Scene Practical (Week 5, Day 4) |
| 4.2.7 Reconstruct potential area(s) of origin, given standard and, if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and fire patterns are identified and correlated to contents or structural remains; and items potentially critical to cause determination are returned to their prefire location as a means of hypothesis testing, such that the area(s) or point(s) of origin is discovered. | Process | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. The effects of fire on different types of material and the importance and uses of reconstruction. | Cognitive | |
| (B) Requisite Skills. Ability to examine all materials to determine the effects of fire, identify and distinguish among different types of fire-damaged contents, and return materials to their original position using protected areas and fire patterns. | Psychomotor | Skill Sheet FINV-04 |
| 4.2.8 Inspect and analyze the performance of building systems, including fire protection, detection and suppression systems, HVAC, electricity and electrical systems, fuel gas systems, and building compartmentation, given standard and special equipment and tools, so that a determination can be made as to the need for expert resources; an operating system's impact on fire growth and spread is considered in identifying origin areas; defeated and failed systems are identified; and the system's potential as a fire cause is recognized. | Process | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. Different types of fire protection, detection, suppression, HVAC, electricity and electrical systems, fuel gas systems, and building compartmentation such as fire walls and fire doors; types of expert resources for building systems; the impact of fire on various systems; common methods used to defeat a system's functional capability; and types of failures. | Cognitive | |



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| (B) Requisite Skills. Ability to determine the system's operation and its effect on the fire; identify alterations to, and failure indicators of, building systems; and evaluate the impact of suppression efforts on building systems. | Psychomotor | Skill Sheet FINV-05 |
| 4.2.9 Discriminate the effects of explosions from other types of damage, given standard equipment and tools, so that an explosion is identified and its evidence is preserved. | Process | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. Different types of explosions and their causes, characteristics of an explosion, and the difference between low- and high-order explosions. | Cognitive | |
| (B) Requisite Skills. Ability to identify explosive effects on glass, walls, foundations, and other building materials; distinguish between low- and high-order explosion effects; and analyze damage to document the blast zone and origin. | Psychomotor | Skill Sheet FINV-06 |
| 4.3* Documenting the Scene. Duties shall include diagramming the scene, photographing, and taking field notes to be used to document scene findings, or to prepare a written report. | | |
| 4.3.1 Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence, pertinent contents, significant patterns, and area(s) or point(s) of origin are identified. | Product | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. Commonly used symbols and legends that clarify the diagram, types of evidence and patterns that need to be documented, and formats for diagramming the scene. | Cognitive | |
| (B) Requisite Skills. Ability to sketch the scene, basic drafting skills, and evidence recognition and observational skills. | Psychomotor | Skill Sheet FINV-07 |
| 4.3.2 Photographically document the scene, given standard tools and equipment, so that the scene is accurately depicted and the photographs support scene findings. | Product | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. Working knowledge of high-resolution camera and flash, the types of film, media, and flash available, and the strengths and limitations of each. | Cognitive | |
| (B) Requisite Skills. Ability to use a high-resolution camera, flash, and accessories. | Psychomotor | Skill Sheet FINV-07 |



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| 4.3.3 Construct investigative notes, given a fire scene, available documents (e.g., prefire plans and inspection reports), and interview information, so that the notes are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings. | Product | Students are provided all equipment and documents during the associated practical sessions and demonstration burns. |
| (A) Requisite Knowledge. Relationship between notes, diagrams, and photos; how to reduce scene information into concise notes; and the use of notes during report writing and legal proceedings. | Cognitive | |
| (B) Requisite Skills. Data-reduction skills, note-taking skills, and observational and correlating skills. | Psychomotor | Skill Sheet FINV-07 |
| 4.4 Evidence Collection/Preservation. Duties shall include using proper physical and legal procedures to identify, document, collect, and preserve evidence required within the investigation. | | |
| 4.4.1 Utilize proper procedures for managing victims and fatalities, given a protocol and appropriate personnel, so that all evidence is discovered and preserved and the protocol procedures are followed. | Process | Students are provided with FSTEMS example policies and procedures. |
| (A) Requisite Knowledge. Types of evidence associated with fire victims and fatalities and evidence preservation methods. | Cognitive | |
| (B) Requisite Skills. Observational skills and the ability to apply protocols to given situations. | Psychomotor | Skill Sheet FINV-08 |
| 4.4.2 Locate, document, collect, label, package, and store evidence, given standard or special tools and equipment and evidence collection materials, so that evidence is properly identified, preserved, collected, packaged, and stored for use in testing, legal, or other proceedings and examinations; ensuring cross-contamination and investigator-inflicted damage to evidentiary items are avoided; and the chain of custody is established. | Psychomotor | Students are provided all equipment during the practical skills testing session. |



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| (A) Requisite Knowledge. Types of evidence, authority requirements, and impact of removing evidentiary items on civil or criminal proceedings (exclusionary or fire-cause supportive evidence); types, capabilities, and limitations of standard and special tools used to locate evidence; types of laboratory tests available; packaging techniques and materials; and impact of evidence collection on the investigation. | Cognitive | |
| (B) Requisite Skills. Ability to recognize different types of evidence and determine whether evidence is critical to the investigation. | Psychomotor | Skill Sheet FINV-08 |
| 4.4.3 Select evidence for analysis, given all information from the investigation, so that items for analysis support specific investigation needs. | Psychomotor | Students will collect information during practical sessions. |
| (A) Requisite Knowledge. Purposes for submitting items for analysis, types of analytical services available, and capabilities and limitations of the services performing the analysis. | Cognitive | |
| (B) Requisite Skills. Ability to evaluate the fire incident to determine forensic, engineering, or laboratory needs. | Psychomotor | Skill Sheet FINV-08 |
| 4.4.4 Maintain a chain of custody, given standard investigative tools, marking tools, and evidence tags or logs, so that written documentation exists for each piece of evidence and evidence is secured. | Process | Students are provided all equipment during the practical skills testing session. |
| (A) Requisite Knowledge. Rules of custody and transfer procedures, types of evidence (e.g., physical evidence obtained at the scene, photos, and documents), and methods of recording the chain of custody. | Cognitive | |
| (B) Requisite Skills. Ability to execute the chain of custody procedures and accurately complete necessary documents. | Psychomotor | Skill Sheet FINV-08 |
| 4.4.5 Dispose of evidence, given jurisdictional or agency regulations and file information, so that the disposal is timely, safely conducted, and in compliance with jurisdictional or agency requirements. | Process | Students are provided with FSTEMS example policies and procedures. |
| (A) Requisite Knowledge. Disposal services available and common disposal procedures and problems. | Cognitive | |
| (B) Requisite Skills. Documentation skills. | Psychomotor | Skill Sheet FINV-08 |



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| 4.5 Interview. Duties shall include obtaining information regarding the overall fire investigation from others through verbal communication. | | |
| 4.5.1 Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and affix responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator's time. | Product | |
| (A) Requisite Knowledge. Persons who can provide information that furthers the fire cause determination or the affixing of responsibility, types of questions that are pertinent and efficient to ask of different information sources (first responders, neighbors, witnesses, suspects, and so forth), and pros and cons of interviews versus document gathering. | Cognitive | |
| (B) Requisite Skills. Planning skills, development of focused questions for specific individuals, and evaluation of existing file data to help develop questions and fill investigative gaps. | Psychomotor | Skill Sheet FINV-09 |
| 4.5.2 Conduct interviews, given incident information, so that pertinent information is obtained, follow-up questions are asked, responses to all questions are elicited, and the response to each question is documented accurately. | Process | Students will collect information during practical sessions. |
| (A) Requisite Knowledge. Types of interviews, personal information needed for proper documentation or follow-up, documenting methods and tools, and types of nonverbal communications and their meaning. | Cognitive | |
| (B) Requisite Skills. Ability to adjust interviewing strategies based on deductive reasoning, interpret and analyze verbal and nonverbal communications, apply appropriate legal requirements, and exhibit strong listening skills. | Psychomotor | Skill Sheet FINV-09 |
| 4.5.3 Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is individually analyzed and correlated with all other interviews, corroborative and conflictive information is documented, and new leads are developed. | Process | Students will generate interview transcripts and notes. Students will collect incident data during practical sessions. |



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| (A) Requisite Knowledge. Types of interviews, report evaluation methods, and data correlation methods. | Cognitive | |
| (B) Requisite Skills. Data correlation skills and the ability to evaluate source information (e.g., first responders and other witnesses). | Psychomotor | Skill Sheet FINV-09 |
| 4.6 Post-Incident Investigation. Duties shall include the investigation of all factors beyond the fire scene at the time of the origin and cause determination. | | |
| 4.6.1 Gather reports and records, given no special tools, equipment, or materials, so that all gathered documents are applicable to the investigation, complete, and authentic; the chain of custody is maintained; and the material is admissible in a legal proceeding. | Process | |
| (A) Requisite Knowledge. Types of reports needed that facilitate determining responsibility for the fire (e.g., police reports, fire reports, insurance policies, financial records, deeds, private investigator reports, outside photos, and videos) and location of these reports. | Cognitive | |
| (B) Requisite Skills. Ability to identify the reports and documents necessary for the investigation, implement the chain of custody, and organizational skills. | Psychomotor | Skill Sheet FINV-10 |
| 4.6.2 Evaluate the investigative file, given all available file information, so that areas for further investigation are identified, the relationship between gathered documents and information is interpreted, and corroborative evidence and information discrepancies are discovered. | Process | Students will collect information during practical sessions. |
| (A) Requisite Knowledge. File assessment and/or evaluation methods, including accurate documentation practices, and requisite investigative elements. | Cognitive | |
| (B) Requisite Skills. Information assessment, correlation, and organizational skills. | Psychomotor | Skill Sheet FINV-10 |
| 4.6.3 Coordinate expert resources, given the investigative file, reports, and documents, so that the expert's competencies are matched to the specific investigation needs, financial expenditures are justified, and utilization clearly furthers the investigative goals of determining cause or affixing responsibility. | Process | Students will generate all needed data during the course of their preparation for final presentations. |



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| (A) Requisite Knowledge. How to assess one's own expertise, qualification to be called for expert testimony, types of expert resources (e.g., forensic, CPA, polygraph, financial, human behavior disorders, and engineering), and methods to identify expert resources. | | |
| (B) Requisite Skills. Ability to apply expert resources to further the investigation by networking with other investigators to identify experts, questioning experts relative to their qualifications, and developing a utilization plan for use of expert resources. | Psychomotor | Skill Sheet FINV-11 |
| 4.6.4 Establish evidence as to motive and/or opportunity, given an incendiary fire, so that the evidence is supported by documentation and meets the evidentiary requirements of the jurisdiction. | Process | An incendiary fire will be produced during one of the burn demonstrations. |
| (A) Requisite Knowledge. Types of motives common to incendiary fires, methods used to discover opportunity, and human behavioral patterns relative to fire-setting. | | |
| (B) Requisite Skills. Financial analysis, records gathering and analysis, interviewing, and interpreting and analyzing fire scene information and evidence for relationship to motive and/or opportunity. | Psychomotor | Skill Sheet FINV-09 Skill Sheet FINV-10 |
| 4.6.5 Formulate an opinion concerning origin, cause, or responsibility for the fire, given all investigative findings, so that the opinion regarding origin, cause, or responsibility for a fire is supported by the data, facts, records, reports, documents, scientific references, and evidence. | Process | Students will collect information during practical sessions. |
| (A) Requisite Knowledge. Analytical methods and procedures (e.g., hypothesis development and testing, systems analysis, time lines, link analysis, fault tree analysis, and data reduction matrixing). | | |
| (B) Requisite Skills. Analytical and assimilation skills. | Psychomotor | Skill Sheet FINV-10 |
| 4.7 Presentations. Duties shall include the presentation of findings to those individuals not involved in the actual investigations. | | |



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| 4.7.1 Prepare a written report, given investigative findings, so that the report accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies and expresses the investigator's opinions and conclusions; and contains the reasoning by which each opinion or conclusion was reached in order to meet the requirements of the intended audience(s). | Product | Students will collect information during practical sessions. |
| (A) Requisite Knowledge. Elements of writing, typical components of a written report, and types of audiences and their respective needs or requirements. | Cognitive | |
| (B) Requisite Skills. Writing skills, ability to analyze information, and determine the reader's needs or requirements. | Psychomotor | Skill Sheet FINV-12 |
| 4.7.2 Express investigative findings verbally, given investigative findings, notes, a time allotment, and a specific audience, so that the information is accurate, the presentation is completed within the allotted time, and the presentation includes only need-to-know information for the intended audience. | Process | Students will generate all needed data during the course of their preparation for final presentations, and present those findings to a panel of experts. |
| (A) Requisite Knowledge. Types of investigative findings, the informational needs of various types of audiences, and the impact of releasing information. | Cognitive | |
| (B) Requisite Skills. Communication skills and ability to determine audience needs and correlate findings. | Psychomotor | Skill Sheet FINV-13 |
| 4.7.3 Testify during legal proceedings, given investigative findings, so that the testimony accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies and expresses the investigator's opinions and conclusions; and contains the reasoning by which each opinion or conclusion was reached. | Process | Students will generate all needed data during the course of their preparation for final presentations, and present those findings to a panel of experts. |
| (A) Requisite Knowledge. Types of investigative findings, types of legal proceedings, professional demeanor requirements, and an understanding of due process and legal proceedings. | Cognitive | |
| (B) Requisite Skills. Communication and listening skills and ability to differentiate facts from opinion and determine accepted procedures, practices, and etiquette during legal proceedings. | Psychomotor | Skill Sheet FINV-13 |