

New Hampshire Department of SafetyDivision of Fire Standards and Training and Emergency Medical Services33 Hazen Drive, Concord, NH 033051-800-371-4503 or 603-223-4200FAX: 603-271-1091

# FIRE STANDARDS AND TRAINING COMMISSION

# **CURRICULUM DEVELOPMENT AND APPROVAL GUIDE**

# FIRE INVESTIGATOR NFPA 1033

Approved by the New Hampshire Fire Standards and Training Commission

Estal char

Date: 3/7/2024

**Commission Approval** 

### **INTRODUCTION:**

One of the tasks the New Hampshire Fire Standards and Training Commission is responsible for, is the approval curricula for firefighters throughout the state to be trained in. To accomplish this portion of their mission the Commission establishes a Visiting Committee who is charged with recommending new curricula, or updating existing certification programs, to present to the Commission for approval and adoption.

#### SCOPE:

This procedure shall apply to all Visiting Committees appointed by the Fire Standards and Training Commission.

#### **PROCEDURE:**

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- Once appointed, the Visiting Committee shall be charged with choosing a pre-packaged ("canned") program. The committee may alter the program slightly to meet the needs of the Commission and the Division. However, the altered curriculum must continue to meet the appropriate NFPA referenced standard, and must continue to resemble the original, pre-packaged program.
- II. Once a Commission Representative has been appointed and the Division shall assign a uniform staff member to represent the Division on said committee. It shall be the responsibility of the Division Staff Representative to lead and assist the Visiting Committee in choosing or developing the curricula to be taught.
- III. With help of the Visiting Committee, the Division shall be responsible for formulating module lesson plans, presentation outlines, and job performance requirements and be consistent with Fire Part 402.03. It is not the responsibility of the committee to choose instructors or design quizzes and exams. However, members of the visiting committee are required to assist in locally validating question banks which will be utilized in creating the certification exams.
- IV. Once a curriculum package is selected an all necessary documentation is completed, it shall present to the full Commission for a preliminary approval. Once a preliminary approval has been granted, two public hearings (one in the day and one in the evening) shall be hold in conjunction with a 60 day written comment period. All pertinent documentation shall be posted on the Division's website and notification of the comment period shall be distributed. Additionally, if ProBoard approval is required, it shall be done simultaneously with the public comment period.
- V. Upon completion of the public comment period and approval, if applicable, from ProBoard, the final curriculum and public comments shall be brought forward to the full Commission for final approval.
- VI. That shall be a program review and report back to the full Commission after the completion of a minimum of two deliveries or a period of one year after the approval.

## **Curriculum Information Sheet**

Name of Certification:	Fire Investigator			
(including NFPA Standard)	NFPA Standards #:         1033         Edition Date:         2022         Next Edition:         2027	7		
Type of Certificate:	NH Certification: Pro-Board Certified X Certificate of Attendance:			
Curriculum Committee	gust 15, 2023 (Vote recorded in meeting minutes)			
Recommendation Date				
ProBoard/Certification	Question bank validation:			
requirements:	Number of exam questions: 100			
Please attached all job sheets	Job Sheets updated and formatted: Yes			
and NFPA matrix	NFPA Matrix: Yes			
Reference Material for Students:	NFPA® 1033 Standard for Professional Qualifications for Fire			
	Investigator (2022)			
Include edition numbers	NFPA <sup>®</sup> 921 Guide for Fire and Explosion Investigations, Most Rece			
Edition*				
	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: <u>12</u>	Max:	16	Number of Currice	ulum Hours:	106
Module Breakdown:		Analyzing the I	ncident		Hours:	2
(in alphabetical order	r) <u>E</u>	Basic Fire Scier	nce & Dyna	mics	Hours:	4
	E	Building Syster	ns		Hours:	2
		Case Report La	yout		Hours:	2
		Classification o	f Fire Caus	е	Hours:	2
		Complex Invest	tigations		Hours:	2
		Curriculum Vita	ae (CV's)		Hours:	2
		Documenting the Fire Scene		Hours:	2	
	E	Electricity and Fire				4
	E	Evidence Collection Practical			Hours:	2
	E	Expert Witness	Challenge	S	Hours:	2
		Explosions / Ex	plosives		Hours:	2
	<u> </u>	Fire & Explosion Death and Injuries		Hours:	2	
	<u> </u>	ire Dynamics	e Dynamics - Burn Demonstration Practical		Hours:	2
	F	Fire Ignition Testing - Hypothesis Testing Practical Hours:				4
	F	Fire Investigation Practical Exercise Hou			Hours:	4
	F	Fire Investigation Practical Exercise			Hours:	4

	Fire Origin & Cause Determination	Hours:	4		
	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,		2		
	Courtroom Testimony	Hours:	2		
	Professional Organizations, Development,	110013			
	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 he	ad outlining t	he		
	following:	0			
	Current fire investigation responsibilities,	OR			
	They are being assigned fire investigation				
	They are assigned to the class as their plac	,	the		
	duration of the course, ensuring no schedu	•			
	Proof of completion for the following IAAI online	-			
	12 months of enrollment:				
	NFPA 1033 and Your Career				
	CFIT - NFPA 1033 and your career.				
	CFIT - Practical application of the relations	hip between I	NFPA		
	1033 and 921				
	CFIT - The Scientific Method for Fire and E	xplosion			
	Investigations.	•			
	CFIT - Charting Your Path in Fire Investigat	ion			
Prerequisites for Instructors:	Certification as a Fire Investigator by the IAAI, NA	FI, ATF&E, <b>OR</b>	•		
	Currently working as fire investigator with a minir				
	experience processing and operating on fire scenes, <b>OR</b>				
	A subject matter expert in the field of fire investigations (Engineer,				
	Attorney, Private Investigator, Forensic Lab perso				
Attorney, Private investigator, Porensic Lab personner, 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 propo	sed training program: Yes X No			
Attach roster of all visiting comm	nittee members Yes X No			
Public Hearing Dates Daytime				
60-day comment period window				
Pleas	e attach all public comment material to this document			
Please attach the following:	the second se			
ProBoard Test matrix				
Test stations				
Practical exam testing	explanation			
Sample schedule				
Visiting Committee me	embers			
	MMISSION			

## New Hampshire Fire Standards & Training Commission - Pilot Program Checklist

#### <u>PROGRAM</u>:

- Has met curriculum approval flow chart
- □ Is NEW in its entirety

## <u>NOTES:</u> EXPLAIN ALL PROBLEM AREAS

□ Is a certification class /description of written and practical sheets

Minimum #

- Meets NFPA Standards
- □ Is an update of an existing class
- □ Is a non-certification class
- □ No applicable standards available
- Pre-Requisites
- □ Terminal performance objectives/competency profiles

### <u>STUDENTS:</u>

- Maximum # \_\_\_\_\_
- Student/Instructor Ratio \_
- Enough to run class? too few-cost prohibitive \_ too few for practical evolutions \_\_

#### INSTRUCTORS:

- Enough to run class \_\_\_\_\_y/n
- Need to do curriculum review
- Need to do complete Train the Trainer

#### <u>CURRICULUM</u>:

- Readily available
- Purchased, ordered, and available in time
- Developed curriculum, editing, and reprinting available in time
- General content of each subject area
- Required number of hours

## <u>EQUIPMENT</u>:

- All tools, equipment, apparatus, and props are presently available
- Additional tools, equipment, apparatus, and props are needed

#### <u>LOCATION:</u>

- Deliverable at NHFA only
- Deliverable at NHFA and in the field
- Deliverable in the field only
- Location requirements:

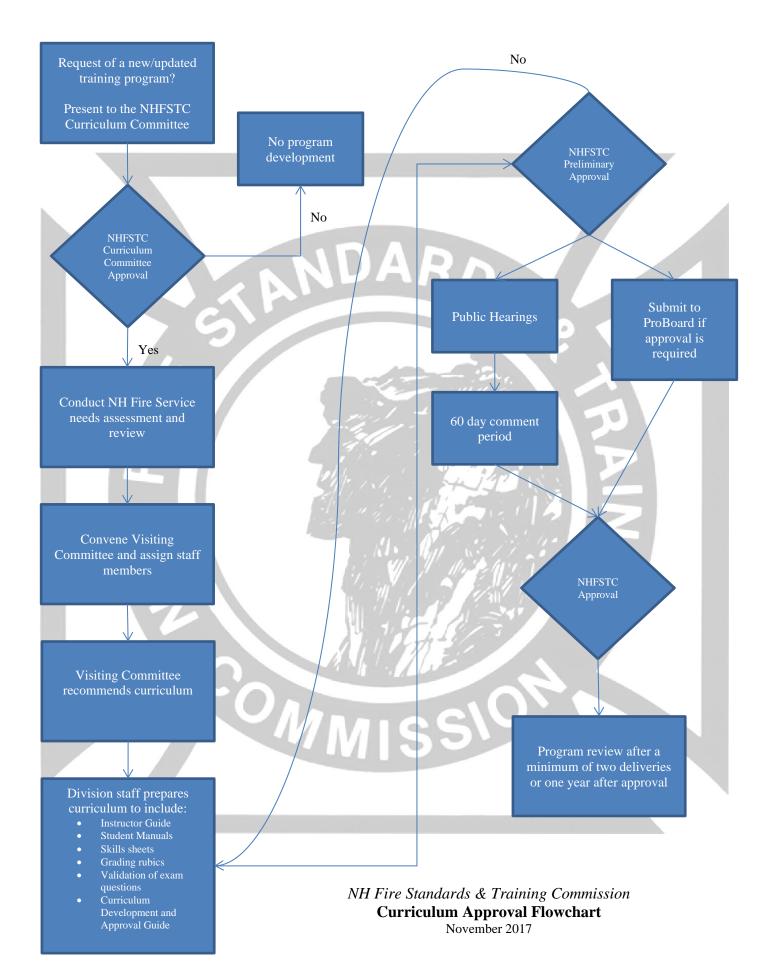
## EVALUATIONS:

#### Students:

- Briefed in importance of evaluations
- Set up by modules
- Set up by class days
- Other: \_\_\_\_\_

#### Instructors:

- Reviewed students evaluations
- □ Met to discuss concerns round table
- □ 1<sup>st</sup> Pilot class reviewed before 2<sup>nd</sup> Pilot
- By Staff
- By Commission
- **Written comments on back**



## **NEW HAMPSHIRE FIRE STANDARDS & TRAINING COMMISSION**

## VISITING COMMITTEE PROTOCOL March 2002

1. Visiting Committees shall be approved by the Fire Standards & Training Commission.

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- 2. Visiting Committees should have one member assigned from the Division who will oversee the visiting committee process shall serve at chair to schedule and preside over Committee meetings and is responsible for all documentation.
- 3. Visiting Committees should have one member assigned from the Fire Standards & Training Commission.
- 4. All Visiting Committee positions shall be advertised at large. All interested parties shall be included in the visiting committee. There shall be no interested parties excluded from providing input on the Committee
- 5. Visiting Committee shall invite public commentary.
- 6. Visiting Committees shall review curricula to assure it conforms with the applicable standards(s) When selecting ProBoard certified curriculums, the Visiting Committee shall pick a curriculum in which a national validated test bank is available.
- 7. Visiting Committees shall present a final recommendation to the Curriculum Review Committee of the Fire Standards & Training Commission.
- 8. Visiting Committees may be requested by the Curriculum Review Committee of the Fire Standards & Training Commission to hold public hearings as necessary.

## NEW HAMPSHIRE FIRE STANDARDS & TRAINING COMMISSION NFPA 1033 Visiting Committee Fire Investigator

Membership:

Position	Name
FST Commission Rep	Jason Smedick
Division Rep	Scott Doherty
	Riley Stanchina
	Peter Lennon
	David Eastman
	Kevin Connelly
	William Connor
	Adam Fanjoy
	Anthony Booth

ALTERNATE:

Shawn Wheeler

## NFPA 1033 2022 – Fire Investigator

The Fire Standards and Training Commission sought public comment on the following revision of the NFPA 1033 2022 – Fire Investigator.

Public hearings were held at the Bedford Fire Department, 55 Constitution Drive, Bedford NH on October 18, 2023, at 3:00 PM and 5:00 PM

• No comments were submitted during the public hearings.

Public comment period September 8, 2023, through November 11, 2023.

• No comments were submitted during the public comment period.





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

Standard	Methodology	Evaluation Details
4.1 General.		
<ul> <li>4.1.7* In order to successfully complete the tasks identified in the JPRs of Sections</li> <li>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:</li> <li>(1) Fire science: <ul> <li>(a) Fire chemistry</li> <li>(b) Thermodynamics</li> <li>(c) Fire dynamics</li> <li>(d) Explosion dynamics</li> </ul> </li> <li>(2) Fire investigation methodology</li> <li>(c) Fire investigation methodology</li> <li>(c) Fire investigation technology</li> <li>(d) Evidence documentation, collection, and preservation</li> <li>(e) Failure analysis and analytical tools</li> <li>(3) Fire scene safety: <ul> <li>(a) Hazard recognition, evaluation, and basic mitigation procedures</li> <li>(b) Hazardous materials</li> <li>(c) Safety regulations</li> </ul> </li> <li>(4) Building systems: <ul> <li>(a) Types of construction</li> <li>(b) Fire protection systems</li> <li>(c) Electricity and electrical systems</li> <li>(d) Fuel gas systems</li> </ul> </li> </ul>	Psychomotor	Skill Sheet FINV-12 Skill Sheet FINV-13
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.		

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Standard	Methodology	Evaluation Details
<b>4.2.1</b> 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)
<b>4.2.2</b> 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)
<b>4.2.3</b> 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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Standard Methodology **Evaluation Details** (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, Cognitive 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. (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 Investigation Scene Practical (Week 5, Day 4) Process fire flow and heat propagation, and evaluate protected areas to determine the presence and/or absence of contents. **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 Students are provided all equipment during the Fire Process of ventilation within the context of the Investigation Scene Practical (Week 5, Day 4) 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. (A) Requisite Knowledge. Fire dynamics, including stages of fire development; methods of heat transfer; compartment fire development; the interrelationship of heat release Cognitive rate (HRR), form, and ignitibility of materials; and the impact and effects of ventilation on the creation of the fire patterns. (B) Requisite Skills. Ability to interpret and analyze the effects of burning characteristics of the fuel Process Fire Investigation Scene Practical (Week 5, Day 4) involved and the effects of ventilation on different types of materials.

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Standard	Methodology	Evaluation Details
<b>4.2.5</b> 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, ignitibility 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)
<b>4.2.6</b> 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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Standard	Methodology	Evaluation Details
(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)
<b>4.2.7</b> 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
<b>4.2.8</b> 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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Standard Methodology **Evaluation Details** (B) Requisite Skills. Ability to determine the system's operation and its effect on the fire; identify alterations to, and Psychomotor Skill Sheet FINV-05 failure indicators of, building systems; and evaluate the impact of suppression efforts on building systems. **4.2.9** Discriminate the effects of explosions from other types of damage, Students are provided all equipment during the practical given standard equipment and tools, so Process skills testing session. that an explosion is identified and its evidence is preserved. (A) Requisite Knowledge. Different types of explosions and their causes, characteristics of an explosion, and the Cognitive difference between low- and high-order explosions. (B) Requisite Skills. Ability to identify explosive effects on glass, walls, foundations, and other building materials; distinguish between low- and Psychomotor Skill Sheet FINV-06 high-order explosion effects; and analyze damage to document the blast zone and origin. 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, Students are provided all equipment during the practical Product pertinent contents, significant patterns, skills testing session. and area(s) or point(s) of origin are identified. (A) Requisite Knowledge. Commonly used symbols and legends that clarify the diagram, types of evidence and Cognitive patterns that need to be documented, and formats for diagramming the scene. (B) Requisite Skills. Ability to sketch the scene, basic drafting skills, and evidence Psychomotor Skill Sheet FINV-07 recognition and observational skills. 4.3.2 Photographically document the scene, given standard tools and Students are provided all equipment during the practical equipment, so that the scene is accurately Product skills testing session. depicted and the photographs support scene findings. (A) Requisite Knowledge. Working knowledge of high-resolution camera and flash, the types of film, media, and Cognitive flash available, and the strengths and limitations of each. (B) Requisite Skills. Ability to use a high-resolution camera, flash, and Skill Sheet FINV-07 Psychomotor accessories.

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Standard	Methodology	Evaluation Details
<b>4.3.3</b> 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
<b>4.4 Evidence Collection/Preservation.</b> Duties shall include using proper physical and legal procedures to identify, document, collect, and preserve evidence required within the investigation.		
<b>4.4.1</b> 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>(B) Requisite Skills.</b> Observational skills and the ability to apply protocols to given situations.	Psychomotor	Skill Sheet FINV-08
<b>4.4.2</b> 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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Standard Methodology **Evaluation Details** (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 Cognitive 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. (B) Requisite Skills. Ability to recognize different types of evidence and Psychomotor Skill Sheet FINV-08 determine whether evidence is critical to the investigation. **4.4.3** Select evidence for analysis, given all information from the investigation, so that Students will collect information during practical Psychomotor items for analysis support specific sessions. investigation needs. (A) Requisite Knowledge. Purposes for submitting items for analysis, types of analytical services available, and Cognitive capabilities and limitations of the services performing the analysis. (B) Requisite Skills. Ability to evaluate Skill Sheet FINV-08 the fire incident to determine forensic, Psychomotor engineering, or laboratory needs. **4.4.4** Maintain a chain of custody, given standard investigative tools, marking tools, Students are provided all equipment during the practical and evidence tags or logs, so that written Process skills testing session. documentation exists for each piece of evidence and evidence is secured. (A) Requisite Knowledge. Rules of custody and transfer procedures, types of evidence (e.g., physical evidence Cognitive obtained at the scene, photos, and documents), and methods of recording the chain of custody. (B) Requisite Skills. Ability to execute the chain of custody procedures and Psychomotor Skill Sheet FINV-08 accurately complete necessary documents. 4.4.5 Dispose of evidence, given jurisdictional or agency regulations and file Students are provided with FSTEMS example policies and information, so that the disposal is timely, Process procedures. safely conducted, and in compliance with jurisdictional or agency requirements. (A) Requisite Knowledge. Disposal services available and common disposal Cognitive procedures and problems. (B) Requisite Skills. Documentation Psychomotor Skill Sheet FINV-08 skills.

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Standard Methodology **Evaluation Details** 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 Product responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator's time. (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 Cognitive efficient to ask of different information sources (first responders, neighbors, witnesses, suspects, and so forth), and pros and cons of interviews versus document gathering. (B) Requisite Skills. Planning skills, development of focused questions for specific individuals, and evaluation of Psychomotor Skill Sheet FINV-09 existing file data to help develop questions and fill investigative gaps. 4.5.2 Conduct interviews, given incident information, so that pertinent information is obtained, follow-up questions are asked, Students will collect information during practical Process responses to all questions are elicited, and sessions. the response to each question is documented accurately. (A) Requisite Knowledge. Types of interviews, personal information needed for proper documentation or follow-up, Cognitive documenting methods and tools, and types of nonverbal communications and their meaning. (B) Requisite Skills. Ability to adjust interviewing strategies based on deductive reasoning, interpret and analyze verbal and nonverbal Psychomotor Skill Sheet FINV-09 communications, apply appropriate legal requirements, and exhibit strong listening skills. 4.5.3 Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is Students will generate interview transcripts and notes. individually analyzed and correlated with Students will collect incident data during practical Process all other interviews, corroborative and sessions. conflictive information is documented, and new leads are developed.

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Standard Methodology **Evaluation Details** (A) Requisite Knowledge. Types of interviews, report evaluation methods, Cognitive and data correlation methods. (B) Requisite Skills. Data correlation skills and the ability to evaluate source Psychomotor Skill Sheet FINV-09 information (e.g., first responders and other witnesses). 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, Process and authentic; the chain of custody is maintained; and the material is admissible in a legal proceeding. (A) Requisite Knowledge. Types of reports needed that facilitate determining responsibility for the fire (e.g., police reports, fire reports, Cognitive insurance policies, financial records, deeds, private investigator reports, outside photos, and videos) and location of these reports. (B) Requisite Skills. Ability to identify the reports and documents necessary for the investigation, implement the Psychomotor Skill Sheet FINV-10 chain of custody, and organizational skills. **4.6.2** Evaluate the investigative file, given all available file information, so that areas for further investigation are identified, the Students will collect information during practical relationship between gathered documents Process sessions. and information is interpreted, and corroborative evidence and information discrepancies are discovered. (A) Requisite Knowledge. File assessment and/or evaluation methods, including accurate documentation Cognitive practices, and requisite investigative elements. (B) Requisite Skills. Information assessment, correlation, and Psychomotor Skill Sheet FINV-10 organizational skills. **4.6.3** Coordinate expert resources, given the investigative file, reports, and documents, so that the expert's competencies are matched to the specific Students will generate all needed data during the course Process investigation needs, financial expenditures of their preparation for final presentations. are justified, and utilization clearly furthers the investigative goals of determining cause or affixing responsibility.

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Standard Methodology **Evaluation Details** (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, Psychomotor Skill Sheet FINV-11 questioning experts relative to their qualifications, and developing a utilization plan for use of expert resources. **4.6.4** Establish evidence as to motive and/or opportunity, given an incendiary An incendiary fire will be produced during one of the fire, so that the evidence is supported by Process burn demonstrations. documentation and meets the evidentiary requirements of the jurisdiction. (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, Skill Sheet FINV-09 interviewing, and interpreting and Psychomotor Skill Sheet FINV-10 analyzing fire scene information and evidence for relationship to motive and/or opportunity. **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 Students will collect information during practical Process responsibility for a fire is supported by the sessions. data, facts, records, reports, documents, scientific references, and evidence. (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 Psychomotor Skill Sheet FINV-10 assimilation skills. 4.7 Presentations. Duties shall include the presentation of findings to those individuals not involved in the actual investigations.

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Standard	Methodology	Evaluation Details
<b>4.7.1</b> 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
<b>4.7.2</b> 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
<b>4.7.3</b> 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

# 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 / Conduc	t Exterior Survey	4.2.1, 4.2.2
02	Interior Survey / Interpret Fire Pa	atterns	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 Build	ling Systems	4.2.8
06	Discriminate the Effects of Explo	osion	4.2.9
07	Documenting the Scene		4.3.1, 4.3.2, 4.3.3
08	Evidence Collection / Preservation	on	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; Establi	sh 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 L	ocation:	Course Dates:	
Instructor Printed Name:		Instructor Signature:	
Candidate Printed Name:		Candidate Signatu	ire:



**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.

Performance Steps		Test		Ret	est
Safely performs the following steps		Р	F	Р	F
1. Uses marking devices to secure investigative area - CRITICA	L POINT				
2. Unauthorized persons are kept from restricted areas - CRITICA	AL 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					
Evaluator Print Name & Signature: Date Overa	II Skill Sheet Score:				
	Pass		Fa	il	
<b><u>Re-Test</u></b> Evaluator Print Name & Signature: Overa	II Skill Sheet <u>Re-Test</u> S	Score:			
Pass       Candidate Print Name & Signature:     Candidate: Print Name			Fa Candid		
Note to Student: Skill will end when you state or indicate to the e identified steps. Notify the evaluator at ANY time that you have a state of the evaluator at ANY time that you have at a state of the evaluator at ANY time that you have at a state of the evalu		compl	eted a	ll the	



## **INTERIOR SURVEY / INTERPRET FIRE PATTERNS**

Reference source: NFPA 1033 - Sections 4.2.3, 4.2.4, 4.2.5, 2022 Edition

### NHFA – CERTIFIED FIRE INVESTIGATOR

## **SKILL SHEET FINV - 02**

The Candidate, given standard equipment / tools and some structural or content remains, shall conduct an interior survey and interpret / identify patterns created by both the fire and fire suppression efforts and how they were impacted by fuel loads and packages in the building.

Pe	formance Steps	ce Steps		Test		Ret	est
Sat	ely performs the following steps			Р	F	Р	F
1.	Assesses structural conditions and ident CRITICAL POINT	ifies any hazar	ds, and offers solutions –				
2.	Verbalizes the damage and effects of the	e fire					
3.	3. Discovers the impact of fire suppression efforts on fire flow and heat propagation						
4.	4. Evaluates protected areas to determine the presence and/or absence of contents						
5.	5. Interprets the effects of burning characteristics on different types of materials						
6.	6. Distinguishes the impact of different fuel loads						
7.	7. Evaluates fuel trailers						
8.	8. Analyzes and synthesizes the information						
(	Candidate must successfully perform 6/8 steps including all CRITICAL POINTS					1	8
	Iluator Notes:						
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score: _				
			Pass		Fa	il	
	Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:		••	
	Condidete Drint Name & Cignet		Pass Fail Candidate: Print Name or Candidate #				
	Candidate Print Name & Signatu	lie.	Candidate. Print Na	meor	Janulo	ale #	
	<b>bte to Student</b> : Skill will end when you state the entified steps. Notify the evaluator at <b>ANY</b>			e comp	leted	all the	



## **EXAMINE AND REMOVE FIRE DEBRIS**

Reference source: NFPA 1033 - Sections 4.2.6, 2022 Edition

## NHFA - CERTIFIED FIRE INVESTIGATOR

# **SKILL SHEET FINV – 03**

The candidate, given standard equipment and tools, shall examine and remove fire debris so that the debris is checked for fire cause evidence, any potential ignition sources are identified, and any evidence is identified and preserved.

Performance Steps			Test		test
Safely performs the following steps		Р	F	Р	F
1. Removes fire debris					
2. Searches for fire cause evidence and ignition source	es				
3. Identifies all potential ignition sources - CRITICAL I	POINT				
4. Collects and preserves evidence - CRITICAL POIN					
5. Identifies all potential accidental sources of ignition -					
6. Ensures evidence is not contaminated or damaged					
Candidate must successfully perform 5 / 6 steps inc	1	6	1	6	
Evaluator Print Name & Signature: Date	Overall Skill Sheet Score: _				
<b>Re-Test</b> Evaluator Print Name & Signature:	Pass Overall Skill Sheet <b>Re-Tes</b>	Score	Fa	.11	
<u>Re-rest</u> Evaluator i finit Name & Signature.	Pass		Fa	uil	
Candidate Print Name & Signature:	Candidate: Print Na		Candic	late #	
Note to Student: Skill will end when you state or indic identified steps. Notify the evaluator at ANY time that y		/e comp	oleted	all the	



## **RECONSTRUCT THE AREA OF ORIGIN**

Reference source: NFPA 1033 - Sections 4.2.7, 2022 Edition

## NHFA - CERTIFIED FIRE INVESTIGATOR

## **SKILL SHEET FINV – 04**

The candidate, given standard tools, shall reconstruct the area of origin so that all protected areas and fire patterns are identified and items are returned to their pre-fire location, and the area of origin is identified.

Performance Steps				Test		Retest	
Saf	ely performs the following steps			Р	F	Р	F
1.	Identifies protected areas						
2.	Determines the effects of fire on items (f	urniture, applia	nces, house hold items, etc)				
3.	Identifies and distinguishes different type <b>CRITICAL POINT</b>	es of fire patter	ns, damage, etc				
4.	Returns materials to their original position	ons using proted	cted areas & fire patterns				
5.	Identifies the area or point of origin -	- CRITICAL F	POINT				
Ca	ndidate must successfully perform 4 /	5 steps includ	ling all CRITICAL POINTS	1	5	1	5
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score: _				
	<b>De Test</b> Evoluctor Drint Name 9, Cia		Pass	Coore	Fa	11	
	Re-Test Evaluator Print Name & Sig	jnature.	Overall Skill Sheet <u>Re-Test</u> Pass	Score.	Fa	il	
	Candidate Print Name & Signate	ure:	Candidate: Print Na				
	<b>bte to Student:</b> Skill will end when you st entified steps. Notify the evaluator at <b>AN</b>			e comp	pleted	all the	



## **INSPECT THE PERFORMANCE OF BUILDING SYSTEMS**

Reference source: NFPA 1033 - Sections 4.2.8, 2022 Edition

### NHFA - CERTIFIED FIRE INVESTIGATOR

# SKILL SHEET FINV – 05

The candidate, given standard tools, shall inspect the performance of all building systems, including detection, suppression, HVAC, utilities, and building compartmentation so that a determination can be made as to the need for expert resources. Impact of fire growth, development, defeated / failed systems are identified, and the systems potential as a fire cause is recognized.

Performance Steps			Test R		Ret	Retest	
Safely performs the following steps			Р	F	Р	F	
1. Determines the operational status of all	building system	ns					
2. Determines the effect, if any, building sys growth, and development.	stems had in re	elation to the fires origin,					
3. Identifies any alteration of, or failure of a <b>CRITICAL POINT</b> .	building syster	m and the indicators –					
4. Evaluates the impact of suppression effort	orts on building	systems					
5. Determines if any expert resources are needed to aid in investigation							
Candidate must successfully perform 4 /	5 steps includ	ling all CRITICAL POINTS	1	5	1	5	
Evaluator Notes:	valuator Notes:						
Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score: _					
		Pass		Fa	il		
Re-Test Evaluator Print Name & Sig	inature:	Overall Skill Sheet Re-Tes	Score:				
		Pass		Fa	il		
Candidate Print Name & Signatu	Candidate: Print Na						
Note to Student: Skill will end when you st identified steps. Notify the evaluator at ANY			ve comp	leted	all the		



## 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.

Performance Steps			Ret	est	
Safely performs the following steps	Р	F	Ρ	F	
1. Identifies explosion effects on glass, walls, foundations, and other building materials					
<ol> <li>Distinguishes between high and low order explosions and the effects – CRITICAL POINT</li> </ol>					
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	1	4	1	4	
Evaluator Print Name & Signature: Date Overall Skill Sheet Score:					
Pass Past Evolution Drive Neuro & Circo et an Oceanall Obiil Chart De Teat C		Fa	1		
Re-Test Evaluator Print Name & Signature: Overall Skill Sheet Re-Test S	score:				
	Pass Fail Candidate: Print Name or Candidate #				
		anuiu	ale #		
<b>Note to Student:</b> Skill will end when you state or indicate to the evaluator that you have identified steps. Notify the evaluator at <b>ANY</b> time that you have a safety concern.	comp	leted	all the		



## 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.

Pei	formance Steps			Te	Test		est
Sat	ely performs the following steps			Р	F	Р	F
1.	Sketches the scene accurately - CRITIC	AL POINT					
2.	Identifies on the sketch pertinent content	s, significant p	patterns & area(s) of origin				
3.	Demonstrates basic drafting skills (include	de scene featu	res and measurements)				
4.	Identifies and documents evidence, loca	tions, etc.					
5.	Uses flash camera to photographical <b>CRITICAL POINT</b>						
6.	Utilizes data reduction skills to reduce inf CRITICAL POINT						
Ca	Candidate must successfully perform 5 / 6 steps including all CRITICAL POINTS					1	6
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score:				
			Pass		Fa	il	
	Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:			
			Pass		Fa	il	
	Candidate Print Name & Signatu	ıre:	Candidate: Print Na	ne or (	Candid	late #	
	ote to Student: Skill will end when you state the steps. Notify the evaluator at ANY			compl	eted a	ll the	



## **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.

Performance Steps				Test		Ret	Retest	
Saf	ely performs the following steps			Р	F	Р	F	
1.	Applies evidence protocols to assigned s	situation – CRI	TICAL POINT					
2.	Identifies / discovers evidence using obs	ervational skill	S					
3.	Identifies different types of evidence & de	etermines if cri	tical 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								
<ol> <li>Evaluates scene to determine if a forensic, engineering, laboratory, or other specialists is needed.</li> </ol>								
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	
	aluator Notes:							
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score:					
			Pass		Fa	il		
	Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:				
			Pass		Fa			
	Candidate Print Name & Signatu		Candidate: Print Na					
	ote to Student: Skill will end when you sta entified steps. Notify the evaluator at ANY			compl	eted a	ll the		



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.

Performance Steps				Test		est
Safely performs the following steps			Р	F	Р	F
1. Develops an interview plan - CRITICAL	POINT					
2. Develops a list of questions for specific in	ndividuals					
3. Evaluates existing data to help develop of	questions					
4. Conducts interview						
5. Adjusts interviewing strategies based	d on deductiv	e reasoning				
6. Interprets verbal and nonverbal commun	ications					
7. Applies legal requirements - CRITICAL						
8. Evaluates interview information						
9. Correlates data, takes accurate notes of ir						
10. Evaluates source information						
Candidate must successfully perform 9 / 10 steps including all CRITICAL POINTS					/ 10	
Evaluator Notes:						
Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score:				
		Pass		Fa	il	
Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:			
	Pass	Fail				
Candidate Print Name & Signatu	ire:	Candidate: Print Na	me or (	Candid	ate #	
Note to Student: Skill will end when you statistication identified steps. Notify the evaluator at ANY			compl	eted a	ll the	



## **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.

Performance Steps				Test		Ret	est
Saf	ely performs the following steps			Р	F	Р	F
1.	Identify the reports / documents necessa policies, financial records, deeds, private inve- videos, etc.) – <b>CRITICAL POINT</b>						
2.	Evaluates the information for accuracy						
3.	3. Correlates the information						
4.	4. Implements the chain of custody – CRITICAL POINT						
5.	Organizes reports and documents						
6.	Discovers discrepancies in information -	CRITICAL PC	DINT				
7.	7. Reviews financial analysis concerning motive, if available.						
8. Interprets fire scene information and evidence to establish motive / opportunity – CRITICAL POINT							
Ca	ndidate must successfully perform 6 / 8	8 steps includ	ing all CRITICAL POINTS	/ 8			8
Eva	aluator Notes:						
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score:				
			Pass		Fa	il	
	Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:			
			Pass		Fa	il	
	Candidate Print Name & Signatu	ıre:	Candidate: Print Nar	ne or C	Candid	ate #	
	Note to Student: Skill will end when you state or indicate to the evaluator that you have completed all the dentified 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.

Pei	rformance Steps				Test		test		
Sat	ely performs the following steps			Р	F	Р	F		
1.	Identifies the applicable expert resource	needed – CRI	TICAL POINT						
2.	Questions the experts relative to their qu								
3.	3. Develops a utilization plan for the use of the expert resources								
Ca	ndidate must successfully perform ALI	L steps incluc	ling all CRITICAL POINTS		/ 3	1	/ 3		
Eva	aluator Notes:	_							
	Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score: _						
			Pass		Fa	ıil			
	Re-Test Evaluator Print Name & Sig	nature:	Overall Skill Sheet Re-Test	Score:					
			Pass	Fail					
	Candidate Print Name & Signatu	ıre:	Candidate: Print Name or Candidate #						
	ote to Student: Skill will end when you sta			) compl	eted a	ll the			
id	ntified steps. Notify the evaluator at <b>ANY</b> 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.

Performance Steps	Test		Ret	est		
Safely performs the following steps			Р	F	Р	F
1. Analyzes the information needed for repor	rt					
2. Identifies the needs / requirements of the	reader					
3. Demonstrates proper writing skills						
4. Prepares a written report given the investig	gative finding	S				
5. Documents search techniques						
6. Minimal grammatical, or spelling error						
7. Uses proper format with the typical compo						
Candidate must successfully perform 5 / 7 steps including all CRITICAL POINTS					/ 7	
Evaluator Print Name & Signature:	Date	Overall Skill Sheet Score:				
		Pass		Fa	il	
Re-Test Evaluator Print Name & Sign	ature:	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 stat identified steps. Notify the evaluator at ANY t			comp	oleted	all the	



## **EXPRESS INVESTIGATIVE FINDINGS**

Reference source: NFPA 1033 - Sections 4.1.2, 4.7.2, 4.7.3, 2014 Edition

## NHFA - CERTIFIED FIRE INVESTIGATOR

# **SKILL SHEET FINV – 13**

The candidate, given investigative findings, shall verbally express the findings as part of testimony so that the information is presented clearly and accurately.

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

## Fire Investigator Schedule Overview

Week 1						
No Class	No Class	No Class	Thursday & Orientation	No Class		
Week 2						
		INDEPENDENT STU	DY			
Week 3						
Monday & Fire Science ふ Burn Demo	Tuesday └ Fire Patterns ஃ Electricity & Fire	Wednesday Gas Systems Magac Explosives	<i>Thursda</i> y 윤 Human Behavior 윤 Safety	Friday 윤 Physical Evidence ら Evidence Practical		
Week 4			-	-		
	INDEPENDENT STUDY					
Week 5						
Monday & Origin & Cause & Analysis	Tuesday 온 Incendiary Fire 온 Complex Investigations	Wednesday ふ Wildland & Motor vehicles	Thursday └── Interviewing & Planning	Friday L Investigation Practical		
Week 6						
No Class	No Class No Class No Class		Thursday ら Ignition Testing Report Writing	No Class		
Week 7						
		INDEPENDENT STU	DY			
Week 8						
No Class	No Class No Class No Class		Thursday & Witnesses & Report Review	No Class		
Week 9						
No Class	No Class	No Class	<i>Thursday</i> 윤 Final Exam 윤 Presentations	No Class		

Key: 
 Online Delivery 
 Classroom Delivery 

## Fire Investigator Detailed Course Schedule

Modu	le Date & Time	Location	Assignments and Activities			
	Week 1					
	Online	<ul> <li>CFIT — Charting Your P</li> </ul>	your career (1hr) ethod for Fire and Explosion Investigations (1hr) ath in Fire Investigation (1hr) ition of the relationship between NFPA 1033 and 921 (1hr)			
Thursday, Aug 22 0800 - 1700	NHFA & EMS Classrooms 5 & 6	<ul><li>Topics / Activities</li><li>Program Orientation</li><li>Legal Considerations</li></ul>				
	Week 2					
	Online		e at the Fire Scene (4hrs)			
	Week 3					
Monday, Sep 2 0800 - 1700	NHFA & EMS Classrooms 5 & 6	Topics / Activities         • Basic Fire Science and I         • Fire Patterns         Image: Second Science Scie				
Tuesday, Sep 3 0800 - 1700	NHFA & EMS Classrooms 5 & 6	Topics / Activities <sup>L</sup> Fire Patterns and Fire                 • Electricity and Fire				
Wednesday, Sep 4 0800 - 1700	NHFA & EMS Classrooms 5 & 6	<ul> <li>Topics / Activities</li> <li>Fuel Gas Systems &amp; Pul</li> <li>⊾ Fuel Gas System Pract</li> <li>Explosions and Explosion</li> <li>⊾ Investigating Explosion</li> </ul>	ical /es			
Thursday, Sep 5 0800 - 1700	Sep 5 Classrooms Sources of Information		tors			
Friday,NHFA & EMSTopics / ActivitiesSep 6Classrooms• Physical Evidence		-	actical			
Week 4						
	Online	<ul> <li>Online Activities</li> <li>CFIT — Investigating Fa</li> <li>CFIT — Investigating Ma</li> <li>CFIT — Fundamentals of CFIT — Fire Protection S</li> <li>CFIT — Fire Protection S</li> <li>CFIT — Lithium-Ion Bat</li> </ul>	otor Vehicle Fires (4hrs) f Residential Building Construction (3hrs) Systems (2hrs)			

# Fire Investigator Detailed Course Schedule

Modul	le	Date & Time	Location	Assignments and Activities		
Week 5						
Monday, Sep 16 0800 - 1700	പ്	NHFA & EMS Classrooms 5 & 6	<ul> <li>Topics / Activities</li> <li>Fire Origin and Cause Determination</li> <li>Classification of Fire Cause</li> <li>Analyzing the Incident</li> </ul>			
Tuesday, Sep 17 0800 - 1700	°Ľ	NHFA & EMS Classrooms 5 & 6	<ul> <li>Topics / Activities</li> <li>Incendiary Fires</li> <li>Building Systems</li> <li>Complex Investigations</li> <li>Fire and Explosion Death and Injuries</li> </ul>			
Wednesday, Sep 18 0800 - 1700	പ്	NHFA & EMS Classrooms 5 & 6	<b>Topics / Activities</b> Solution: Solution of the second			
Thursday,       NHFA & EMS         Sep 19       Classrooms         0800 - 1700       5 & 6             Topics / Activities         Lassrooms       Interviewing and Practical         Planning the Investigation       Case Report Layout						
Friday, Sep 20 0800 - 1700	വ്	NHFA & EMS Classrooms 5 & 6	<b>Topics / Activities</b> Fire Investigation Prac	tical Exercise		
			Weel	<b>&lt; 6</b>		
Thursday, Sep 26 0800 - 1700	പ്	NHFA & EMS Classrooms 5 & 6	Topics / Activities Fire Ignition Testing ar Report Writing	nd Hypothesis Testing Practical		
			Weel	< <b>7</b>		
	⊕	Online		l Origin & Cause Report (2hrs) gations & Testimony (3hrs) re Investigator (3hrs)		
Week 8						
Thursday, Oct 10 0800 - 1700	¢	NHFA & EMS Classrooms 5 & 6	Topics / Activities Curriculum Vitae (CV) Expert Witness Challeng Presenting Your Case: P Team Reports Review	ges rosecutors, Grand Juries, Courtroom Testimony		
	Week 9					
Thursday, Oct 17 0800 - 1700 This schedule ren		NHFA & EMS Classrooms 5 & 6	<ul> <li>Topics / Activities</li> <li>Final Certification Exam</li> <li>Investigation Final Project of instruction and is subject to</li> </ul>			