



# National Fire Academy

**R0780 – Fire Investigation: Forensic Evidence and Interviewing  
Version: 1st Edition, 2nd Printing, March 2024**

**Quarter:**

**ACE Credit: Pending**

**IACET Continuing Education Units: Pending**

**Length of Course: 6 Days (40 hr., 25 min., contact hours, Sunday – Friday)**

**Prerequisite: Yes**

**Curriculum: Fire Investigation**

**Training Specialist: Kevin Oliver**

**Instructor:**

**Instructor email/phone:**

**Classroom: J-**

**Meeting Time: 8 AM – 5 PM**

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## Course Description (Catalog)

R0780 – “Fire Investigation: Forensic Evidence and Interviewing” This 6-day course is an intense, interactive and realistic experience providing students with information on various types of forensic evidence and related information that can be gathered at a fire scene and the knowledge and skills to document, collect and submit evidence for investigations. Students will be required to perform realistic, hands-on practicals of collecting and submitting items of evidence.

This course is offered in a blended format; students are assigned videos to view, discussion boards and other activities 2 weeks prior to arrival with corresponding course work. Students

who fail to complete the pre-arrival distance learning activities will be removed from the resident portion of the course, not permitted access to the National Emergency Training Center, and forfeit stipend reimbursement.

Students must bring a laptop or tablet and copies of National Fire Protection Association (NFPA) 921, *Guide for Fire and Explosion Investigations* (2021) and NFPA 1033, *Standard for Professional Qualifications for Fire Investigator* (2022) to class.

Successful completion of this course satisfies the training and education requirements for International Association of Arson Investigators Evidence Collection Technician certification.

### **Student Qualifications (Primary and Secondary Audience)**

The primary audience for this course is full-time public service personnel with fire or arson investigative responsibilities. This course is not designed for crime scene technicians or criminalistics personnel who possess an understanding of crime scene processing.

This course does not focus on traditional fire scene processing, but on crime scene processing for the fire investigator. Priority will be reserved for students who have completed FI: E.

### **Course Scope (Goal)**

This course is intended to address critical skills essential to fire investigation, including interviewing strategies, interviewing methodologies, and the identification, preservation, collection, packaging, processing and testing of evidence from a fire and/or crime scene.

### **Course Objectives (Course Learning Outcomes – TLOs)**

After successfully completing this course, you will be able to accomplish the following:

- Differentiate accepted practices in fire and crime scene documentation and preservation.
- Integrate proper collection processes for ignitable liquids to achieve the best possible outcome during laboratory analysis.
- Select proper identification, documentation, collection and preservation techniques for sources of digital evidence.
- Choose the correct process and collect hair and fiber evidence suitable for laboratory submission.
- Formulate the collection processes and produce a latent fingerprint suitable for laboratory submission.
- Produce useable, properly identified and packaged samples from a variety of blood, bodily fluids and DNA sources.
- Integrate the physical collection and the physical match of both glass and fiber evidence as recovered from a crime scene.

- Plan the safe and proper collection processes for firearms and weapons.
- Create foot and tire impressions suitable for submission to a crime laboratory.
- Collect toolmarks and impression evidence from samples provided.
- Formulate collection processes for paint and relate the significance of sample to laboratory analysis.
- Summarize the collection processes for questioned documents and relate the significance of sample analysis by a laboratory.
- Organize post-blast and explosive evidence for identification and processing by a laboratory.
- Evaluate circumstances to prepare for, conduct and document a successful interview.
- Conduct, document, analyze and communicate the findings of a crime scene investigation.

### **Course Delivery Method**

The National Fire Academy (NFA) offers specialized training courses and advanced management programs of national impact in an academic classroom environment [on campus at the National Emergency Training Center \(NETC\) in Emmitsburg, Maryland](#). This classroom course is designed for the national level fire service officer from State and local fire service organizations. During this 6-day delivery, students will reside in dormitories provided on campus with classes conducted in classrooms designed for critical student/instructor interaction. All course materials are designed for interactive classroom environments, in either paper notebook or electronic formats.

## Course Schedule

The purpose of the course schedule is to give you, at a glance, the required preparation, activities, and evaluation components of your course.

<b>DAY 1</b>	<b>DAY 2</b>
Introduction Unit 1: Scene Documentation	Unit 5: Latent Fingerprints (cont'd)
<i>Break</i>	<i>Break</i>
Unit 1: Scene Documentation (cont'd) Unit 2: Ignitable Liquid	Unit 6: Blood/Bodily Fluids/DNA Unit 7: Glass/Physical Matches
<i>Lunch</i>	<i>Lunch</i>
Unit 2: Ignitable Liquid (cont'd) Unit 3: Digital Evidence	Unit 8: Firearms/Weapons Unit 9: Foot/Tire Impressions (Known and Unknown)
<i>Break</i>	<i>Break</i>
Unit 4: Hair/Fiber Unit 5: Latent Fingerprints	Unit 9: Foot/Tire Impressions (Known and Unknown) (cont'd)

Note: This schedule is subject to modification by the instructors and approved by the training specialist.

<b>DAY 3</b>	<b>DAY 4</b>
Unit 10: Toolmarks Unit 11: Paint	Unit 15: Practicum Practicum Part I
<i>Break</i>	<i>Break</i>
Unit 11: Paint (cont'd) Unit 12: Questioned Documents	Practicum Part I (cont'd)
<i>Lunch</i>	<i>Lunch</i>
Unit 13: Explosives	Practicum Part II
<i>Break</i>	<i>Break</i>
Unit 13: Explosives (cont'd) Unit 14: The Forensic Interview	Practicum Part II (cont'd) Practicum Part III

<b>DAY 5</b>	<b>DAY 6</b>
Practicum Part III (cont'd)	Wrap-up Final Exam
<i>Break</i>	<i>Break</i>
Practicum Part III (cont'd)	Wrap-up (cont'd) Final Exam (cont'd)
<i>Lunch</i>	<i>Lunch</i>
Practicum Part IV	Flex time
<i>Break</i>	<i>Break</i>
Practicum Part IV (cont'd)	Flex time

## **Course Resources (Instructional Materials)**

In order to be fully prepared, obtain a copy of the required textbooks and other instructional materials prior to the first day of class.

### **Required Readings**

The student must complete required readings during the course to be able to thoughtfully participate in discussions and activities.

None.

### **Suggested Reading/Resources**

Suggested readings and resources are not evaluated, but may enhance the student's understanding, serve as additional sources for citation and promote discussion of course material.

None.

### **Required Resources (Course Textbook)**

Student Manual.

### **Supplemental Resources (Supplemental Course Textbook)**

None.

## **Grading Methodology (Evaluation Procedures)**

Grading rubrics are provided for all graded assignments. Grading rubrics can be accessed on Blackboard by selecting Assessments > Rubrics. Each rubric is labeled according to activity name.

Students who do not complete the entire course will be awarded an Incomplete (I) grade. In accordance with NFA academic policies, an Incomplete (I) grade must be removed by the end of the next semester following the course, or it automatically becomes a Failing (F) grade.

The final course grade will comprise the elements in the following tables:

Elements	Completion/ Formal Grade	Grade	Weights
<b>Activities</b>			
Assignment 1: Compare Evidence Collection Methods Essay	Formal Grade	16	7.5%
Assignment 2: Crime Scene Interview Questions Essay	Formal Grade	12	7.5%
Activity 1.1: Crime Scene Measurement	Completion	–	–
Activity 2.1: Ignitable Liquid: Ignition and Miscibility Testing	Completion	–	–
Activity 2.2: Ignitable Liquid: Sample: Collection	Completion	–	–
Activity 5.1: Latent Fingerprints: Tape	Completion	–	–
Activity 5.2: Latent Fingerprints: Super Glue	Completion	–	–
Activity 5.3: Latent Fingerprints: Dusters/Gel Lifters	Completion	–	–
Activity 6.1: Molotov Cocktail: Collection	Completion	–	–
Activity 9.1: Foot Impression	Completion	–	–
Activity 10.1: Toolmarks: Collection	Completion	–	–
Activity 13.1: Explosives: Collection	Completion	–	–
Practicum Part I: Crime Scene Investigation	Formal Grade	100	30%
Practicum Part II: Submit Lab Requests	Completion	–	–
Practicum Part III: Final Narrative	Formal Grade	12	20%
Practicum Part IV: Prosecutor Presentations	Formal Grade	14	15%
<b>Final Exam</b>	Formal Grade	100	20%
<b>Total</b>			<b>100%</b>

Students who do not obtain an end-of-course passing score face possible sanctions for up to 12 months regarding acceptance or placement in future NFA course offerings

### Required Reading Assignments

Student completion of reading assignments will be done via evaluation of their class participation and will not be a separately graded activity.

### Suggested Readings

Suggested readings are not evaluated, but may enhance the student's understanding and promote discussion of course material.



## **Course Outline**

### **Introduction (Day 1)**

#### **Objectives**

None

### **Unit 1: Scene Documentation (Day 1)**

#### **Objectives**

##### **Terminal Learning Objective**

The students will be able to:

Differentiate accepted practices in fire and crime scene documentation and preservation.

##### **Enabling Learning Objectives**

The students will be able to:

- 1.1 Illustrate the impact of spoliation.
- 1.2 Evaluate photographic equipment requirements.
- 1.3 Articulate best practices in both fire and crime scene photography.
- 1.4 Examine technology available for fire scene documentation, examination and presentation.

### **Unit 2: Ignitable Liquid (Day 1)**

#### **Objectives**

##### **Terminal Learning Objective**

The students will be able to:

Integrate proper collection processes for ignitable liquids to achieve the best possible outcome during laboratory analysis.

### **Enabling Learning Objectives**

The students will be able to:

- 2.1 Evaluate ignitable liquids as forensic evidence.
- 2.2 Manage all aspects of ignitable liquid evidence as viable forensic evidence.
- 2.3 Collect ignitable liquid as forensic evidence.
- 2.4 Preserve ignitable liquid as forensic evidence.

### **Unit 3: Digital Evidence (Day 1)**

#### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Select proper identification, documentation, collection and preservation techniques for sources of digital evidence.

#### **Enabling Learning Objectives**

The students will be able to:

- 3.1 Explain the role of digital evidence analysis in forensic investigations.
- 3.2 Identify sources of digital forensic evidence.
- 3.3 Document sources of digital forensic evidence.
- 3.4 Collect sources of digital forensic evidence.
- 3.5 Preserve sources of digital forensic evidence.

## **Unit 4: Hair/Fiber (Day 1)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Choose the correct process and collect hair and fiber evidence suitable for laboratory submission.

#### **Enabling Learning Objectives**

The students will be able to:

- 4.1 Identify sources of hair and fiber evidence.
- 4.2 Document sources of hair and fiber evidence.
- 4.3 Choose the appropriate methodology for hair and fiber evidence collection.
- 4.4 Apply proper collection processes for hair and fiber evidence.
- 4.5 Demonstrate preservation of hair and fiber evidence.
- 4.6 Discuss the role that hair and fiber evidence play in forensic investigations.

## **Unit 5: Latent Fingerprints (Day 1)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Formulate the collection processes and produce a latent fingerprint suitable for laboratory submission.

#### **Enabling Learning Objectives**

The students will be able to:

- 5.1 Identify sources of latent fingerprints as evidence.
- 5.2 Document sources of latent fingerprints as evidence.
- 5.3 Collect sources of latent fingerprints as evidence.

- 5.4 Preserve sources of latent fingerprints as evidence.
- 5.5 Choose the appropriate methodology for fingerprint collection.
- 5.6 Apply proper collection processes for latent fingerprints.
- 5.7 Demonstrate the role that latent fingerprints play in forensic investigations.

## **Unit 6: Blood/Bodily Fluids/DNA (Day 2)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Produce useable, properly identified and packaged samples from a variety of blood, bodily fluids and DNA sources.

#### **Enabling Learning Objectives**

The students will be able to:

- 6.1 Identify blood, bodily fluids and DNA as forensic evidence.
- 6.2 Document blood, bodily fluids and DNA as forensic evidence.
- 6.3 Collect blood, bodily fluids and DNA as forensic evidence.
- 6.4 Preserve blood, bodily fluids and DNA as forensic evidence.
- 6.5 Discuss the relevance of blood, bodily fluids and DNA as forensic evidence.

## **Unit 7: Glass/Physical Matches (Day 2)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Integrate the physical collection and the physical match of both glass and fiber evidence as recovered from a crime scene.

### **Enabling Learning Objectives**

The students will be able to:

- 7.1 Identify glass and physical matches as forensic evidence.
- 7.2 Document glass and physical matches as forensic evidence.
- 7.3 Collect glass and physical matches as forensic evidence.
- 7.4 Preserve glass and physical matches as forensic evidence.
- 7.5 Relate the significance of sample analysis for glass and physical matches.

### **Unit 8: Firearms/Weapons (Day 2)**

#### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Plan the safe and proper collection processes for firearms and weapons.

#### **Enabling Learning Objectives**

The students will be able to:

- 8.1 Identify firearms and weapons as forensic evidence.
- 8.2 Document firearms and weapons as forensic evidence.
- 8.3 Collect firearms and weapons as forensic evidence.
- 8.4 Preserve firearms and weapons as forensic evidence.

## **Unit 9: Foot/Tire Impressions (Known and Unknown) (Day 2)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Create foot and tire impressions suitable for submission to a crime laboratory.

#### **Enabling Learning Objectives**

The students will be able to:

- 9.1 Identify foot and tire impressions as forensic evidence.
- 9.2 Document foot and tire impressions as forensic evidence.
- 9.3 Collect foot and tire impressions as forensic evidence.
- 9.4 Preserve foot and tire impressions as forensic evidence.

## **Unit 10: Toolmarks (Day 3)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Collect toolmarks and impression evidence from samples provided.

#### **Enabling Learning Objectives**

The students will be able to:

- 10.1 Identify toolmarks as forensic evidence.
- 10.2 Document toolmarks as forensic evidence.
- 10.3 Collect toolmarks as forensic evidence.
- 10.4 Preserve toolmarks as forensic evidence.

## **Unit 11: Paint (Day 3)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Formulate collection processes for paint and relate the significance of sample to laboratory analysis.

#### **Enabling Learning Objectives**

The students will be able to:

- 11.1 Identify paint as forensic evidence.
- 11.2 Document toolmarks as forensic evidence.
- 11.3 Collect paint as forensic evidence.
- 11.4 Preserve paint as forensic evidence.

## **Unit 12: Questioned Documents (Day 3)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Summarize the collection processes for questioned documents and relate the significance of sample analysis by a laboratory.

#### **Enabling Learning Objectives**

The students will be able to:

- 12.1 Identify questioned documents as forensic evidence.
- 12.2 Document questioned documents as forensic evidence.
- 12.3 Collect questioned documents as forensic evidence.
- 12.4 Preserve questioned documents as forensic evidence.

### **Unit 13: Explosives (Day 3)**

#### **Objectives**

##### **Terminal Learning Objective**

The students will be able to:

Organize post-blast and explosive evidence for identification and processing by a laboratory.

##### **Enabling Learning Objectives**

The students will be able to:

- 13.1 Identify explosives as forensic evidence.
- 13.2 Document explosives as forensic evidence.
- 13.3 Collect explosives as forensic evidence.
- 13.4 Preserve explosives as forensic evidence.

### **Unit 14: The Forensic Interview (Day 3)**

#### **Objectives**

##### **Terminal Learning Objective**

The students will be able to:

Evaluate circumstances to prepare for, conduct and document a successful interview.

##### **Enabling Learning Objectives**

The students will be able to:

- 14.1 Evaluate circumstances to conduct a successful interview.
- 14.2 Evaluate circumstances to properly document a legally admissible interview.



## **Unit 15: Practicum (Day 4)**

### **Objectives**

#### **Terminal Learning Objective**

The students will be able to:

Conduct, document, analyze and communicate the findings of a crime scene investigation.

#### **Enabling Learning Objectives**

The students will be able to:

- 15.1 Conduct a safe and systematic crime scene investigation to determine the evidence that can be collected and used.
- 15.2 Collect and preserve crime scene evidence.
- 15.3 Request the appropriate laboratory testing.
- 15.4 Analyze laboratory result findings to distinguish pertinent evidence.
- 15.5 Prepare and present all appropriate documentation to complete a crime scene analysis.

### **Policies**

#### **Class Attendance and Cancellation Policy**

##### **Attendance**

- You are required to attend all sessions of the course. If you do not, you may not receive a certificate, and your stipend may be denied.
- If you need to depart campus early and miss any portion of the course and/or graduation, you must make the request in writing to the NFA training specialist. The training specialist, in collaboration with the superintendent, may waive the attendance requirement in order to accommodate you with extraordinary circumstances as long as you complete all course requirements. If you receive approval for departing early, you must forward the approval to the Admissions Office so your stipend reimbursement is not limited.

### **Student Substitutions**

Substitutions for NFA courses are made from waiting lists; your fire department can't send someone in your place.

### **Cancellations or No-Shows**

NFA's mission for delivery of courses is impaired significantly by cancellations and no-shows. It is very difficult and costly to recruit students at the last minute. Currently there is a two-year ban on student attendance for students who are no-shows or cancel within 30 days of the course start date without a valid reason. If you receive such a restriction, your supervisor needs to send a letter to our Admissions Office explaining the cancellation/no-show.

### **Course Failure**

If you fail an on-campus course, you will not be issued a stipend for that course. You can reapply for the failed course or any other NFA course and go through the random selection process. You don't have to successfully complete the failed course before attending another NFA course.

### **Student Code of Conduct Policy**

Students, instructors and staff are expected to treat each other with respect at all times. Inappropriate behavior will not be tolerated and may result in removal from campus and denial of stipends.

### **Writing Expectations**

Student writing will conform to the generally accepted academic standards for college papers. Papers will reflect the original work of the student and give appropriate credit through citations for ideas belonging to other authors, publications or organizations. Student written work should be free of grammatical and syntax errors, free of profanity or obscene language or ideas, and reflect critical thinking related to the course subject matter.

### **Citation and Reference Style**

Attention Please: Students will follow the APA, Seventh Edition as the sole citation and reference style used in written work submitted as part of coursework to NFA. Assignments completed in a narrative essay, composition format, abstract, and discussion posts must follow the citation style cited in the APA, Seventh Edition.

### **Late Assignments**

Students are expected to submit classroom assignments by the posted due date (11:59 p.m. EDT/EST) and to complete the course according to the published class schedule. As adults, students, and working professionals, you must manage competing demands on your time. Discussion board postings submitted within 3 days after the submission deadline will receive up

to a 20% deduction. Those that do not submit their discussion board postings within this timeline will receive a “0” grade for the week. Final assignment papers will not be accepted after the deadline. Any paper submitted after the deadline will receive a “0” grade for that assignment.

### **Netiquette**

Online learning promotes the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and “flaming.” Such activity and the loss of good manners are not acceptable in a professional learning setting – basic academic rules of good behavior and proper “Netiquette” must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks or student attempts to stifle the forum of others.

- Technology Limitations. While you should feel free to explore the full-range of creative composition in your formal papers, keep e-mail layouts simple. The NFA Online classroom may not fully support MIME or HTML encoded messages, which means that bold face, italics, underlining, and a variety of color-coding or other visual effects will not translate in your e-mail messages.
- Humor Note. Despite the best of intentions, jokes and especially satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add “emoticons” to help alert your readers: ;-), : ), ☺ .

### **Disclaimer Statement**

Course content may vary from the outline to meet the needs of this particular group.

### **Grading**

Please review the following rubrics that explain how grades will be awarded.

Students who do not complete the entire course will be awarded an Incomplete (I) grade. In accordance with National Fire Academy academic policies, an Incomplete (I) grade must be removed by the end of the next semester following the course, or it automatically becomes a Failing (F) grade.

If you fail an on-campus course, you will not be issued a stipend for that course. You can reapply for the failed course or any other NFA course and go through the random selection process. You don’t have to successfully complete the failed course before attending another NFA course.

[http://www.usfa.fema.gov/training/nfa/admissions/student\\_policies.html](http://www.usfa.fema.gov/training/nfa/admissions/student_policies.html)

## **Academic Honesty**

Students are expected to exhibit exemplary ethical behavior and conduct as part of the NFA community and society as a whole. Acts of academic dishonesty including cheating, plagiarism, deliberate falsification, and other unethical behaviors will not be tolerated.

Students are expected to report academic misconduct when they witness a violation. All cases of academic misconduct shall be reported by the instructor to the Training Specialist.

If a student is found to have engaged in misconduct and the allegations are upheld, the penalties may include, but are not limited to one or a combination of the following:

- expulsion,
- withholding of stipend or forfeiture of stipend paid,
- exclusion from future classes for a specified period; depending on the severity it could range from 1-10 years, and/or
- forfeiture of certificate for course(s) enrolled in at NETC.

Refer to NFA-specific Standard Operating Procedure 700.1 – *Academic Code of Conduct and Ethics* for more information.

# Grading Rubrics

## Practicum Part I: Crime Scene Investigation Rubric (Individual Assignment)

This table details the point distribution for Practicum Part I: Crime Scene Investigation.

	ID Two Pieces of Evidence	ID Four Pieces of Evidence	ID Six Pieces of Evidence	ID Eight Pieces of Evidence	Score/Level
<b>Student will identify eight pieces of evidence</b>	6 Points — The student will receive 6 points for the identification of two pieces of evidence (3 points per evidence item).	12 Points — The student will receive 12 points for the identification of four pieces of evidence (3 points per evidence item).	18 Points — The student will receive 18 points for the identification of six pieces of evidence (3 points per evidence item).	24 Points — The student will receive 24 points for the identification of eight pieces of evidence (3 points per evidence item).	
<b>Student will properly collect evidence identified</b>	8 Points — The student will receive 8 points for the proper collection of two pieces of evidence (4 points per evidence item).	16 Points — The student will receive 16 points for the proper collection of four pieces of evidence (4 points per evidence item).	24 Points — The student will receive 24 points for the proper collection of six pieces of evidence (4 points per evidence item).	32 Points — The student will receive 32 points for the proper collection of eight pieces of evidence (4 points per evidence item).	
<b>Student will properly package evidence identified</b>	10 Points — The student will receive 10 points for the proper packaging of two pieces of evidence (5 points per evidence item).	20 Points — The student will receive 20 points for the proper packaging of four pieces of evidence (5 points per evidence item).	30 Points — The student will receive 30 points for the proper packaging of six pieces of evidence (5 points per evidence item).	40 Points — The student will receive 40 points for the proper packaging of eight pieces of evidence (5 points per evidence item).	
<b>Perimeter security</b>	0 Points — Student does not establish proper perimeter security/control within and outside of crime scene.	1 Point — Student does not establish proper perimeter area, but does control area identified as crime scene.	3 Points — Student establishes proper perimeter security and control within but not outside of crime scene.	4 Points — Student establishes proper perimeter security and control within and outside of crime scene.	

**Grading:** 90–100 = A, 80–89 = B, 70–79 = C, 60–69 = D, 0–59 = F

Practicum Part III: Final Narrative Rubric (Individual Assignment)

This table details the point distribution for Practicum Part III: Final Narrative.

Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<b>0 Points</b>	<b>1 Point</b>	<b>2 Points</b>	
<b>Summarize the case scenario. Include the initial observations and initial identification, collection and packaging planning actions anticipated.</b>	The student fails to provide a summary <b>or</b> provides an answer that is poorly articulated or does not demonstrate/document the initial scene observations and actions taken.	The student provides a summary that is adequately articulated, demonstrates some reflection, and makes mostly logical ties to the initial scene observations and actions taken.	The student provides a comprehensive summary that is well articulated, demonstrates significant reflection, and makes logical ties to the initial scene observations and actions taken.	
<b>For each item collected:</b>	<b>Two or more of the following:</b>	<b>One of the following:</b>	<b>Evidence of understanding and critical thinking:</b>	
<ul style="list-style-type: none"> <li>• <b>Identify the item.</b></li> <li>• <b>Briefly discuss how the item was identified, any unique challenges in identification or recognition of the item, and why the item was deemed important.</b></li> <li>• <b>Write three to four sentences per item.</b></li> </ul>	<ul style="list-style-type: none"> <li>• The student fails to identify all items of evidence.</li> <li>• The student fails to provide a description of the evidence collected.</li> <li>• The student fails to provide a thorough explanation of how the evidence was deemed important to the scenario.</li> <li>• The student provides an answer that is poorly articulated illogical or does not demonstrate sufficient reflection of the scenario, evidence or course material.</li> </ul>	<ul style="list-style-type: none"> <li>• The student fails to identify all items of evidence.</li> <li>• The student fails to provide a description of the evidence collected.</li> <li>• The student provide a thorough explanation of how the evidence was deemed important to the scenario.</li> <li>• The student provides an answer that is poorly articulated, illogical or does not demonstrate sufficient reflection of the scenario, evidence or course material.</li> </ul>	<ul style="list-style-type: none"> <li>• The student identifies all items of evidence.</li> <li>• The student provides a description of the evidence collected.</li> <li>• The student provides a thorough explanation of how the evidence was deemed important to the scenario.</li> <li>• The student provides an answer that is well articulated, logical and demonstrates sufficient reflection of the scenario, evidence or course material.</li> </ul>	

Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<b>0 Points</b>	<b>1 Point</b>	<b>2 Points</b>	
<p>Choose four items that were collected.</p> <ul style="list-style-type: none"> <li>Provide a written synopsis of the collection method used by the student.</li> <li>Compare and contrast the chosen method with another method that was not used and articulate the justification for the chosen method.</li> <li>Write one paragraph for each item (three to five sentences).</li> </ul>	<p>Any two or more of the following:</p> <ul style="list-style-type: none"> <li>Fails to include four items.</li> <li>Fails to address the collection method.</li> <li>Fails to articulate alternative collection methods.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Fails to justify selected method.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Provides an answer that is poorly articulated, illogical, or does not demonstrate sufficient understanding of the scenario, evidence or course material.</li> </ul>	<p>Any one of the following:</p> <ul style="list-style-type: none"> <li>Fails to include four items.</li> <li>Fails to address the collection method.</li> <li>Fails to articulate alternative collection methods.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Fails to justify selected method.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Provides an answer that is poorly articulated, illogical, or does not demonstrate sufficient understanding of the scenario, evidence or course material.</li> </ul>	<p>The student comprehensively addresses the reflection point in a manner that is well articulated, demonstrates significant reflection, and makes logical ties that demonstrate a comprehensive understanding of the scenario, evidence and course material.</p>	
<p>Choose four items and list the item and the expected laboratory examination outcome.</p>	<p>The student fails to:</p> <ul style="list-style-type: none"> <li>Choose four items.</li> <li>Address the expected outcome of more than two items.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>Provides an answer that is poorly articulated, illogical, or does not demonstrate sufficient reflection of the scenario or the expected laboratory examination outcomes.</li> </ul>	<p>The student addresses the reflection point, correctly identifies at least three items in a manner that is adequately articulated and makes mostly logical ties to the scenario and expected examination outcome.</p>	<p>The student comprehensively addresses the reflection point in a manner that is well articulated, identifies four items, demonstrates significant reflection, and makes clear, logical ties to the scenario and expected laboratory outcomes.</p>	

Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<p><b>0 Points</b></p> <p>The student fails to:</p> <ul style="list-style-type: none"> <li>• Address two items.</li> <li>• Address the reflection point, cannot find any room for improvement.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• Provides an answer that is poorly articulated, illogical, or does not demonstrate sufficient understanding of the scenario, evidence or course material.</li> </ul>	<p><b>1 Point</b></p> <p>The student addresses the reflection point in a manner that is adequately articulated, where there is room for improvement, and makes mostly logical ties that demonstrate understanding of the scenario, evidence and course material.</p>	<p><b>2 Points</b></p> <p>The student comprehensively addresses the reflection point in a manner that is well articulated, and demonstrates an understanding of the improvement needed or the mistake made in the original collection or packaging activity.</p>	
<p><b>Choose two items where the collection or packaging did not go as expected and discuss the mistakes identified, lessons learned and actions that may avoid that mistake in the future.</b></p>				
<p><b>Grammar, spelling and APA style</b></p>	<p>Contained more than three grammatical, spelling or APA errors</p>	<p>Contained no more than two grammatical, spelling or APA errors.</p>	<p>Correctly followed APA format with no grammatical or spelling errors.</p>	

**Grading: 11–12 = A, 10 = B, 9 = C, 8 = D, 0–7 = F**



Practicum Part IV: Prosecutor Presentations Rubric (Group Assignment/Grade)

This table details the point distribution for Practicum Part IV: Prosecutor Presentations.

Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<b>0 Points</b>	<b>1 Point</b>	<b>2 Points</b>	
<p>The complete presentation covers and discusses the following five sections or topic areas:</p> <ul style="list-style-type: none"> <li>• Brief overview of the scenario.</li> <li>• Review of items collected with photographs and scene diagram.</li> <li>• Nexus between the items collected and the crime scene.</li> <li>• Conclusions expected outcomes of laboratory examination.</li> <li>• Investigative leads developed by the evidence (i.e., next steps).</li> </ul>	<p>Missing one or more of the following:</p> <ul style="list-style-type: none"> <li>• Overview of scenario information.</li> <li>• Review of evidence collected at the scene.</li> <li>• Nexus as to how the evidence collected relates to the scenario.</li> <li>• Conclusions made based on the scene, evidence and lab results.</li> <li>• Next steps identified that are reasonable for real-world application.</li> </ul> <p>or</p> <ul style="list-style-type: none"> <li>• All sections are present but contain major flaws in content or reasoning.</li> </ul>	<p>All of the following are present with only minor flaws:</p> <ul style="list-style-type: none"> <li>• Overview of scenario information.</li> <li>• Review of evidence collected at the scene.</li> <li>• Nexus as to how the evidence collected relates to the scenario.</li> <li>• Conclusions made based on the scene, evidence and lab results.</li> <li>• Next steps identified that are reasonable for real-world application.</li> </ul>	<p>All of the following are present with no flaws:</p> <ul style="list-style-type: none"> <li>• Overview of scenario information.</li> <li>• Review of evidence collected at the scene.</li> <li>• Nexus as to how the evidence collected relates to the scenario.</li> <li>• Conclusions made based on the scene, evidence and lab results.</li> <li>• Next steps identified that are reasonable for real-world application.</li> </ul>	

Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<b>0 Points</b>	<b>1 Point</b>	<b>2 Points</b>	
<b>Photographic documentation of the scene</b>	Photos are unrecognizable (e.g., out of focus, under/overexposed, etc.) <b>or</b> not included (e.g., lost, overlooked, etc.).	Scene is accurately depicted with photographs supporting the scene findings according to NFPA 1033, Section 4.3.2. Must include photographs that accurately capture the scene and evidence items.	Photographs are clear, focused and illustrate the crime scene <b>and</b> display a balance of light and shadows in difficult scene conditions to achieve ideal exposure.  <b>or</b> Use macro photography.	
<b>Completed scene diagram</b>	Any <b>one</b> of the following: <ul style="list-style-type: none"> <li>• Scene diagram is not drawn in plain view.</li> <li>• Cardinal directions are not included.</li> <li>• "Not to scale" disclaimer is not provided when required.</li> <li>• The diagram does not accurately represent the scene.</li> </ul>	<b>All</b> of the following are present: <ul style="list-style-type: none"> <li>• Scene diagram is drawn in plain view.</li> <li>• Cardinal directions are included.</li> <li>• "Not to scale" disclaimer is provided when required.</li> <li>• The diagram accurately represents the scene.</li> </ul>	Scene diagram satisfies the "Meets Objectives" criteria <b>and</b> includes overlays or animations that retain an accurate graphic representation.	
<b>Identification of all evidence</b>	Evidence is not properly identified, collected or properly packaged for shipment to the laboratory, <b>or</b> a satisfactory evidence log is not produced.	All evidence is identified, collected and properly packaged for shipment to the laboratory, <b>and</b> a satisfactory evidence log is produced.	All evidence is identified, collected, properly packaged and recorded in a comprehensive evidence log, <b>and</b> trace evidence or initially overlooked evidence is located and preserved.	

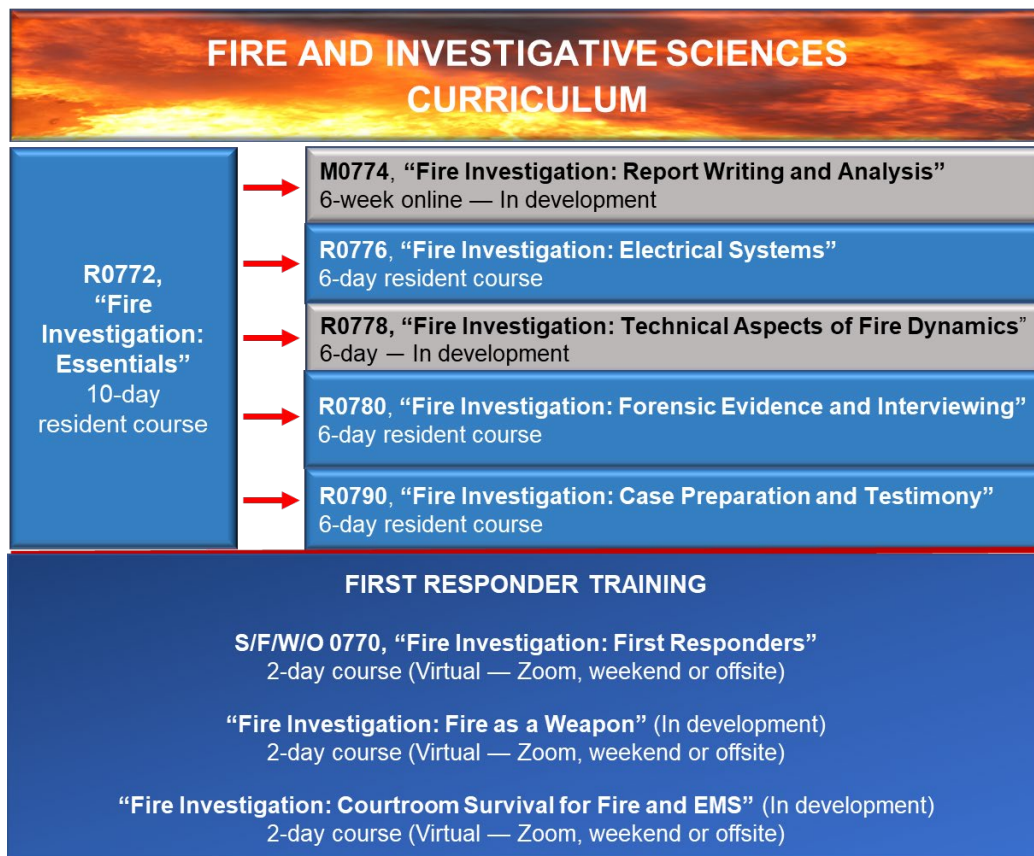
Criteria Category	Needs Improvement	Meets Objectives	Exemplary	Notes
	<b>0 Points</b>	<b>1 Point</b>	<b>2 Points</b>	
<b>Nexus between the items collected and the crime scene</b>	<p>Fails to accurately evaluate, characterize or understand the evidence collected.</p> <p><b>or</b></p> <p>Incorrectly interprets the significance of said evidence.</p>	<p>Clearly depicts the evidence collected in a thoughtful and useful manner.</p> <p><b>and</b></p> <p>Interprets the significance of said evidence.</p>	<p>Analysis demonstrated a complete understanding and analysis criteria.</p> <p><b>and</b></p> <p>Logically articulates the subsequent investigative steps.</p>	
<b>Comprehensive narrative</b>	<p>Presentation does not "tell the story" of the crime scene. May depict photos but is <b>not</b> adequate to present to a supervisor or prosecuting attorney.</p>	<p>Presentation depicts the crime scene <b>and</b> helps to explain the examination process of the crime scene analysis.</p>	<p>Presentation satisfies the "Meets Objectives" criteria <b>and</b> rises to the level of a presentation worthy of submission to a supervisor or prosecuting attorney.</p>	
<b>Grammar, spelling and length</b>	<p>Any one of the following:</p> <ul style="list-style-type: none"> <li>• Contained three or more grammatical or spelling errors.</li> <li>• Did not adhere to the 30-minute length requirement (i.e., more than five minutes over or under the prescribed time limit).</li> </ul>	<p>Any <b>one</b> of the following:</p> <ul style="list-style-type: none"> <li>• Contained no more than two grammatical or spelling errors.</li> <li>• Generally adhered to the 30-minute length requirement (i.e., less than five minutes over or under the prescribed time limit).</li> </ul>	<p>Contained no grammatical or spelling errors.</p> <p>Made effective use of the 30-minute length requirement with no significant deviations.</p>	

**Grading:** 13–14 = A, 11–12 = B, 10 = C, 9 = D, 0–8 = F

## Fire and Investigative Sciences Curriculum

The NFA hosted a comprehensive curriculum review of the Fire and Investigative Sciences Curriculum with renowned, national experts. The review focused on an assessment of national needs, duplications, gaps in existing programs and training; performed a detailed technical review and audit of NFA’s existing course materials; and prepared a short- and long-range plan for NFA’s current and future Fire and Investigative Sciences programs and curriculum that will meet national training and service needs. NFA works collaboratively on all curriculum updates with our trusted partner, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF), Fire Programs and Training Branch.

As a result of the review, a Professional Fire Investigator career track was created to align the needs within the profession and in the field with the needs of current investigators:



### Course Descriptions

#### **Fire Investigation: Essentials (R0772)**

This 10-day course is the foundation of the Fire and Investigative Sciences Curriculum. The course utilizes NFPA 921, *Guide for Fire and Explosion Investigations*, and NFPA 1033, *Standard for Professional Qualifications for Fire Investigator*, and other professional documents

to address the technical and scientific knowledge and skills needed to conduct successful fire/arson investigations.

Using a combination of classroom instruction, activities, written assignments and group projects, students will demonstrate the ability to conduct science-based fire investigations that culminate, when appropriate, in prosecution for the crime of arson. Outdoor activities will require students to have work clothes and boots and be capable of processing a fire scene (bending, kneeling and lifting up to 50 pounds). Successful completion of this course satisfies the education and testing requirements for IAAI-FIT certification.

### **Fire Investigation: Report Writing and Analysis (M0774) — IN DEVELOPMENT**

This six-week, instructor-led, online course will enable fire investigators to prepare, review and critique fire investigation reports. Students will develop and revise reports in accordance with NFPA 921 and 1033. Students' reports will undergo a technical and legal review and be presented to an expert in the field of fire investigation. It is anticipated that this course will require up to eight hours of self-directed work per week. R0774 will expand upon concepts presented in R0772, FI: E.

### **Fire Investigation: Electrical Systems (R0776)**

This six-day, specialized course addresses the critical skills essential to the effective investigation and evaluation of fires involving potential electrical fire causes. Students will demonstrate current techniques, practices, protocols and standards that assist investigators in the evaluation of electrical systems and associated components. Outdoor activities will require students to have work clothes and boots, participate in a series of practical activities that involve working with tools and electrical test equipment, and be capable of processing a fire scene (bending, kneeling, and lifting up to 50 pounds). R0776 expands upon concepts presented in R0772, FI: E.

### **Fire Investigation: Technical Aspects of Fire Dynamics (R0778) — IN DEVELOPMENT**

This six-day, specialized course will enable investigators to develop a forensic analysis of a fire scene based on evidence, fire dynamics and related fire scene analysis best practices. The course provides an overview of scene documentation, timeline development, fire dynamics in structures, standardized testing, and physical and computational fire modeling. Outdoor activities require students to have work clothes and boots and be capable of processing a fire scene (bending, kneeling and lifting up to 50 pounds). The instruction uses current techniques, procedures, protocols, and standards to aid the fire investigator. R0778 expands upon concepts presented in R0772, FI: E.

### **Fire Investigation: Forensic Evidence and Interviewing (R0780)**

This six-day, specialized course will address critical skills essential to fire investigation to include interviewing strategies and the identification, collection, packaging, preservation, processing and testing of evidence from a fire and/or crime scene. Using a combination of

classroom instruction, activities, written assignments and projects, students will demonstrate the ability to conduct science-based fire investigations with the application of current practices in the forensics investigation field. Outdoor activities require students to have work clothes and boots and be capable of processing a fire scene (bending, kneeling and lifting up to 50 pounds). Successful completion of this course satisfies the education and testing requirements for IAAI Evidence Collection Technician (ECT) certification. R0780 expands upon concepts presented in R0772, FI: E.

### **Fire Investigation: Case Preparation and Testimony (R0790)**

This six-day course is an intense, interactive and realistic experience providing students with case development, case review, and the knowledge and skills to prepare to testify as an expert. This course is offered in a blended format; students are assigned a cold case file two weeks prior to arrival with corresponding course work. Once students arrive on campus, they will use the case file to complete an expert origin and cause report from which the student will provide testimony in a courtroom setting. Students who fail to complete the pre-arrival distance learning activities will be removed from the in-residence portion of the course and forfeit stipend reimbursement. Successful completion of this course satisfies the requirements of the IAAI for Expert Testimony. This course expands upon concepts presented in FI: E (R0772). Students seeking additional interviewing, evidence, and data collection instruction should consider the new course FI: FEI (R0780).

The Fire and Investigative Sciences Curriculum also offers a 2-day course for first responders. This course is not considered part of the professional track; however, it does meet a critical, national need. Response personnel considering a career in fire investigation are strongly encouraged to attend the 2-day course.

### **Fire Investigation: First Responders (F/O/S/W 0770)**

This two-day course presents a basic overview of a fire investigation. Students will review the basics of fire chemistry and develop an understanding of the role of the first responder in relation to fire suppression and fire investigation. The course will stress the importance of fire scene awareness, evidence identification, preservation and the basics of a fire investigation. Students will develop an appreciation of the convergence of suppression, investigation, science and law.

### **Fire Investigation: Fire as a Weapon — IN DEVELOPMENT**

This two-day course was developed to aid first responders in understanding and recognizing how fire can be used as a weapon against people and/or property. This course should also help first responders and investigators understand why a person would choose to use fire as a weapon, as well as creating awareness of the types of information fire investigators may need from fire and emergency services personnel.

## **Fire Investigation: Courtroom Survival for Fire and EMS — IN DEVELOPMENT**

This two-day course will assist fire and emergency medical services (EMS) personnel in understanding the importance of proper documentation of fire and EMS-related incidents. The course will provide fire and EMS personnel with a general walk-through of the trial process. Further, it will aide fire and EMS personnel in understanding the difference between lay (fact) and expert witnesses and how to avoid the “traps” of offering opinions that the first responder is not qualified to offer.