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Special **REPORT**

Crime Scene Investigation: A Reference for Law Enforcement Training

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Introduction

Note: Words and phrases that are defined in the glossary appear in ***bold italics*** *on their first appearance in the body of the report.*

Thorough crime scene analysis is vitally important to effective law enforcement. In particular, rapid technological advances have greatly expanded the amount of information that can be obtained from the analysis of physical evidence from a crime scene. In order to take advantage of these new opportunities, the investigator should use sound scene processing practices to recover useful evidence. Critical to the administration of a crime is the objective recognition, ***documentation, collection,*** preservation, and transmittal of physical evidence for analysis.

This reference material is designed to assist trainers and administrators in developing training programs for crime scene investigators. It is intended to accompany *Crime Scene Investigation: A Guide for Law Enforcement,* published by the National Institute of Justice (NIJ) in January 2000. Both publications were developed by NIJ's Technical Working Group on Crime Scene Investigation (TWGCSI). The earlier guide and these training materials are divided into four primary sections that mirror the tasks of the investigator: Arriving at the Scene: Initial Response/Prioritization of Efforts; Preliminary Documentation and Evaluation of the Scene; Processing the Scene; and Completing and Recording the Crime Scene Investigation. Each part of this document includes proposed performance objectives for the student to ensure attainment of the material. NIJ recommends that student performance be measured using written and practical examinations, including the processing of a mock crime scene.

This document can provide the basis for a new training program or as a supplement to an existing program. Any training program, however, must be adapted to the policies and experience of the administering law enforcement agency. The crime guide and these curriculum materials provide instructors with a framework grounded in research and based on the expertise of the TWGCSI members. The recommendations do not represent the only correct course of action and may not be feasible in all circumstances. In no case should the guide or this reference document be considered a legal mandate or policy directive. We expect that each jurisdiction will be able to use these recommendations to develop policies and procedures that are best suited to its unique environment.

We gratefully acknowledge the contributions of the TWGCSI members. They gave their time and valuable expertise for this project. NIJ relies on the contributions of experienced practitioners and researchers to advance scientific research, development, and evaluation to enhance the administration of justice and public safety.

Technical Working Group on Crime Scene Investigation

The Technical Working Group on Crime Scene Investigation (TWGCSI) was a multidisciplinary group of content-area experts from across the United States, from both urban and rural jurisdictions, each representing his or her respective agency or practice and a unique area of expertise. Each of these individuals is experienced in the area of crime scene investigation and evidence collection in the criminal justice system from the standpoints of law enforcement, prosecution, defense, or forensic science.

A planning group, the National Crime Scene Planning Panel (NCSPP), composed of distinguished law enforcement, legal, and science professionals, was formed to steer the larger group.

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Crime Scene Investigation: A Reference for Law Enforcement Training

Section A — Arriving at the Scene: Initial Response/Prioritization of Efforts

Section B — Preliminary Documentation and Evaluation of the Scene

Section C — Processing the Scene

Section D — Completing and Recording the Crime Scene Investigation

Section E — Crime Scene Equipment

Section A

Arriving at the Scene: Initial Response/Prioritization of Efforts

1. **Initial Response/Receipt of Information**
2. **Safety Procedures**
3. **Emergency Care**
4. **Secure and Control Persons at the Scene**
5. **Establish and Preserve Scene Boundaries**
6. **Transfer Control of the Scene to the Investigator(s) in Charge**
7. **Document Actions and Observations at the Scene**

Section Performance Objective

At the conclusion of this training section, the student is expected to demonstrate a working knowledge of the essential components of the initial response to a crime scene. This includes demonstrating the ability to assemble the information related to the initial actions upon arrival at the crime scene and the ability to assess a scene to ensure officer safety and scene control. The student is expected to demonstrate competence in each of the topic areas through testing—either written, practical, or both.

1. Initial Response/Receipt of Information

a. **Note or log dispatch information.**

b. **Be aware of any persons or vehicles leaving the crime scene.**

c. **Approach the scene cautiously.**

d. **Assess the scene for officer safety.**

e. **Remain alert and attentive.**

f. **Treat location(s) as a crime scene until determined to be otherwise.**

Performance Objective Given a crime scene scenario, the student is expected to demonstrate overall scene awareness by noting all essential information initially received, documenting all persons or vehicles leaving the crime scene, and assessing the scene to ensure officer safety and scene status.

1. Initial Response/Receipt of Information

a. **Note or log dispatch information.**

NOTE: The responding officer is expected to obtain this key information (e.g., from dispatch or direct citizen complaint to officer, or officer observation onsite).

1. Address.
2. Location (e.g., storefront, second floor rear, garage, mile marker, compass direction).
3. Time.
4. Date.
5. Type of call.
6. Parties involved.
7. Weapons involved.
8. Ongoing and/or dangerous scene.

b. **Be aware of any persons or vehicles leaving the crime scene.**

NOTE: The officer is expected to, as soon as possible, write down information.

1. Note arrival time.
2. Describe vehicles.

NOTE: Make, model, color, condition, license plate number, age.

3. Describe individuals.

NOTE: Height, weight, race, age, clothing, sex, distinguishing features.

4. Describe direction of travel (from first observation).

c. Approach the scene cautiously.

1. Scan the entire area to thoroughly assess the scene.
2. Note any possible secondary crime scenes (e.g., different areas where evidence/activity is observed).
3. Be aware of any persons in the vicinity who may be related to the crime.
4. Be aware of any vehicles in the vicinity that may be related to the crime.

d. Assess the scene for officer safety.

1. Assess the scene for ongoing dangerous activity.

NOTE: Look, listen, smell (e.g., downed power lines, animals, biohazards, chemicals, weapons).

2. Ensure officer safety before proceeding.

NOTE: Discretion is advised. Unreasonably dangerous scenes should not be entered (e.g., anthrax, bomb scene).

e. Remain alert and attentive.

1. Assume crime is ongoing until determined to be otherwise (e.g., keep looking, listening, smelling).

f. Treat location(s) as a crime scene until determined to be otherwise.

1. Use all information initially received.
2. Use all senses.

NOTE: The scene may not be what it initially appears to be.

2. Safety Procedures

a. Evaluate the scene for safety concerns.

b. Approach the scene with caution.

c. Survey the scene for dangerous persons and control the situation.

d. Notify supervisory personnel and call for assistance/backup.

Performance Objective Given a crime scene scenario, the student is expected to identify appropriate methods of surveying a scene for dangerous persons and controlling the situation until support arrives, note all related safety concerns and contact appropriate individuals/agencies to handle dangers, and identify appropriate methods of cautiously approaching a scene to reduce safety risks to individuals near the scene.

2. Safety Procedures

a. Evaluate the scene for safety concerns.

1. Scan the area for present dangers (look, listen, smell).
2. Check for hazardous materials (e.g., gasoline, natural gas, electrical lines, biohazards).
3. Check for weapons.
4. Check for ***radiological*** or ***chemical threats.***
5. Notify appropriate support agencies to render the scene safe (prior to entry) (e.g., fire department, HazMat, bomb squad).

b. Approach the scene with caution.

1. Ensure officer safety.
2. Reduce risk to victim(s).
3. Reduce risk to witnesses.
4. Reduce risk to others.

c. Survey the scene for dangerous persons and control the situation.

1. Be aware of violent persons.
2. Be aware of potentially escalating conflicts.

NOTE: Remember that officers' actions can contribute to the escalation or de-escalation of the situation.

3. Apply communication and defensive training skills.

d. Notify supervisory personnel and call for assistance/backup.

1. Follow departmental guidelines for notification of supervisors.
2. Call for assistance/backup as appropriate.

3. Emergency Care

a. Assess the victim(s) for injury.

b. Call for medical personnel.

c. Guide medical personnel to the victim(s) at the scene.

d. Point out potential physical evidence to medical personnel.

e. Instruct emergency medical personnel not to "clean up" the scene.

f. Document emergency medical responder(s) at the scene.

g. Obtain "dying declaration" as appropriate.

h. Document statements and comments.

i. Document statements and comments made during transport.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to preserve the integrity of the scene by recognizing potential physical evidence, informing medical personnel of its presence, and instructing medical personnel not to "clean up" the scene. The student is also expected to demonstrate the ability to document any scene alteration, and/or any statements and comments by individuals, including those made by individuals during transport to a medical facility.

3. Emergency Care

a. Assess the victim(s) for injury.

1. Assess medical needs/signs of life.
2. Administer emergency first aid (if needed).

b. Call for medical personnel.

1. Follow departmental guidelines/practices for notification of emergency medical personnel.
2. Continue to assist the victim(s) as necessary.

c. Guide medical personnel to the victim(s) at the scene.

1. Choose pathway to minimize ***contamination***/alteration of the crime scene.
2. Direct medical personnel along the chosen pathway.
3. Remain with emergency medical personnel, if possible.

d. Point out potential physical evidence to medical personnel.

1. Instruct emergency medical personnel to avoid contact with evidence items/material.

2. Instruct emergency medical personnel to preserve all clothing (avoid altering bullet holes, knife tears, etc.).

NOTE: Altering includes cutting, tearing, ripping through existing bullet holes.

3. Document movement of injured persons by emergency medical personnel.
4. Document movement of scene items by emergency medical personnel (e.g., furniture, blankets, weapons).

e. Instruct emergency medical personnel not to "clean up" the scene.

1. Avoid removal of items originating from the scene (e.g., removal of ***trace*** and other physical ***evidence*** by adherence to emergency medical equipment and personnel cleaning the victim's skin surface).
2. Avoid alteration of items originating from the scene.

NOTE: Alterations to the scene can include additions of items by emergency medical personnel.

f. Document emergency medical responder(s) at the scene.

NOTE: This is for future investigative purposes (e.g., information about scene alteration and/or to obtain ***elimination*** and/or ***standard/reference samples***).

1. Name(s).
2. Unit(s).
3. Agency name and business telephone numbers.
4. Name/location of medical facility to which the victim(s) is being transported.

g. Obtain "dying declaration" as appropriate.

NOTE: Review jurisdictional law regarding ***dying declarations.***

1. Assess victim's level of injury (life-threatening injury).
2. Note any statement.

h. Document statements and comments.

NOTE: Documentation should include to whom and under what circumstances statements/comments were made.

1. Document statements and comments made by victims.
2. Document statements and comments made by suspects.
3. Document statements and comments made by witnesses.

i. Document statements and comments made during transport.

1. Accompany the injured person(s) to the medical facility, if possible.
2. Document statements and comments made by the injured person(s) during transport.
3. If law enforcement is unavailable, request that medical personnel who accompany the injured person(s) to the medical facility document statements and comments.

NOTE: Remind medical personnel to preserve evidence.

4. Secure and Control Persons at the Scene

a. Control all persons at the scene.

b. Identify all persons at the scene.

c. Exclude unauthorized/nonessential personnel from the scene.

Performance Objective Given a crime scene scenario, the student is expected to assess and implement the levels of control required for persons or personnel at a crime scene while ensuring the safety of others and the integrity of potential evidence. The student also is expected to demonstrate the ability to identify persons at the scene.

4. Secure and Control Persons at the Scene

a. Control all persons at the scene.

1. Restrict movement of persons at the scene.
2. Prevent persons from altering physical evidence.
3. Prevent persons from destroying physical evidence.
4. Continue to maintain safety at the scene.
5. Restrict areas of movement within the scene.
6. Continue to control the scene by maintaining officer presence.

b. Identify all persons at the scene.

NOTE: Identify means to obtain verifiable personal information.

1. Identify suspects (secure and separate).
2. Identify witnesses (secure and separate).
3. Identify bystanders (remove from the scene).
4. Identify victims/family members/friends (control while showing compassion).
5. Identify medical and assisting personnel.

c. Exclude unauthorized/nonessential personnel from the scene.

1. Law enforcement officials not working the case.
2. Politicians.
3. Media.
4. Other nonessential personnel (e.g., any persons not performing investigative or safety functions at the scene).

5. Establish and Preserve Scene Boundaries

a. Establish scene boundaries by identifying the focal point(s) of the scene and extending outward.

b. Set up physical barrier(s).

c. Document entry of all people entering and exiting the scene.

d. Maintain integrity of the scene.

e. Attempt to preserve/protect evidence at the scene.

f. Document the original location of the victim(s) or objects at the scene that were observed being moved.

g. Follow jurisdictional laws related to search and seizure.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to establish scene ***boundaries,*** set up physical scene barrier(s) to ensure the containment and protection of all physical evidence, and document all people entering and exiting the scene and the original location of all items that were/are moved. The student is also expected to demonstrate knowledge of applicable jurisdictional search and seizure law.

5. Establish and Preserve Scene Boundaries

a. Establish scene boundaries by identifying the focal point(s) of the scene and extending outward.

NOTE: Be aware of trace and ***impression evidence*** during scene assessment.

1. Secure areas where the crime occurred.
2. Secure areas that are potential points and paths of entry/exit of suspects/witnesses.
3. Secure areas where victim(s)/evidence may have moved or been moved.
4. Initially secure a larger area, since it is easier to contract than to expand the boundaries.

b. Set up physical barrier(s).

1. Set the physical perimeter for established scene boundaries (with crime scene tape, rope, cones, vehicles, personnel, etc.).
2. Set the physical perimeter for established scene boundaries by using existing structures (walls, rooms, gated areas, etc.).

c. Document entry of all people entering and exiting the scene.

1. Record the names of persons entering the scene.
2. Record the names of persons exiting the scene.

d. Maintain integrity of the scene.

1. Control the flow of personnel and animals entering and exiting the scene.

e. Attempt to preserve/protect evidence at the scene.

1. Protect evidence from environmental elements, if possible.
2. Protect evidence from manmade intrusions (e.g., shoe or tire impressions).
3. Protect evidence from mechanical devices (e.g., sprinklers, helicopters).
4. Protect evidence from animals.

f. Document the original location of the victim(s) or objects at the scene that were observed being moved.

NOTE: Care should be taken to use nondestructive techniques to document locations.

1. Document point of origin of the victim(s) or items at the scene.
2. Document alternate location.

g. Follow jurisdictional laws related to search and seizure.

1. Determine the need for obtaining consent to search or a search warrant.

6. Transfer Control of the Scene to the Investigator(s) in Charge

a. Brief the investigator(s) taking charge of the scene.

b. Assist in controlling the scene.

c. Transfer control of entry/exit documentation.

d. Remain at the scene until relieved of duty.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to inform the investigator(s) taking charge of the scene of all known scene information and to transfer scene control.

6. Transfer Control of the Scene to the Investigator(s) in Charge

a. Brief the investigator(s) taking charge of the scene.

1. Introduce yourself and explain role.
2. Relay information regarding the incident.

NOTE: Information to include roles and identities of the parties, facts of the incident, observations, comments by the parties, and information by ***other responders.***

3. Point out scene boundaries.
4. Point out chosen pathway.

b. Assist in controlling the scene.

1. Check with the lead investigator for instruction.

c. Transfer control of entry/exit documentation.

1. Relinquish responsibility for continued documentation to a designated person.
2. Assure responsibility is understood.

d. Remain at the scene until relieved of duty.

1. Contact the ***investigator(s) in charge*** for instruction.
2. Document scene departure time.

7. Document Actions and Observations at the Scene

a. Document observations of the crime scene.

b. Document conditions upon arrival at the scene.

c. Document personal information, statements, and/or comments from witnesses, victims, and suspects.

d. Document own actions and actions of others.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to document information encompassing his or her observations and actions at the crime scene. Information includes locations, appearances, and conditions of all persons and items noted, and should communicate scene conditions, information from witnesses, victims and suspects, and the actions of other personnel.

7. Document Actions and Observations at the Scene

a. Document observations of the crime scene.

NOTE: Observations should be based on facts, not opinions.

1. Location of persons within the crime scene.
2. Location of items within the crime scene.
3. Appearance of persons within the crime scene.
4. Appearance of items within the crime scene.
5. Condition of persons within the crime scene.
6. Condition of items within the crime scene.

b. Document conditions upon arrival at the scene.

1. Climate (weather, indoor and/or outdoor temperature).
2. Lighting (day/night, artificial/natural).
3. Fixtures (doors, windows/shades, gates).
4. Odor(s)/color(s) (gas/oil, cleaners, perfumes, smoke, fire).
5. Furniture (moved/in place).
6. Personal items (missing/in place).
7. Changing or deteriorating items (melting ice cream, impressions in snow/sand, ambient temperature indoors).

8. Appliances (on/off, hot/cold, functional/broken).
9. Vehicles (engine hot/cold).

c. Document personal information, statements, and/or comments from witnesses, victims, and suspects.

1. Include all personal identifying information provided.
2. Include all statements/comments as provided.

d. Document own actions and actions of others.

1. Note all tasks performed and by whom.
2. Note all tasks delegated.
3. Note all areas entered and by whom.
4. Note own dispatch, arrival, and departure times.
5. Note all items moved or changed, by whom, and for what purpose.

Section B

Preliminary Documentation and Evaluation of the Scene

1. **Conduct Scene Assessment**
2. **Conduct Scene "Walk-Through" and Initial Documentation**

Section Performance Objective

At the conclusion of this training section, the student is expected to demonstrate the ability to assess the scene by evaluating issues concerning scene and evidence integrity/security, maintain communication between personnel, and ensure that necessary tasks are assigned and completed. The student is expected to be familiar with the critical aspects of selecting a pathway, conducting a ***walk-through,*** and documenting preliminary aspects of the crime scene. The student is expected to demonstrate competence in each of the topic areas through testing—either written, practical, or both.

1. Conduct Scene Assessment

a. Talk to the first responder regarding his/her observations/activities.

b. Evaluate safety issues for personnel entering the scene.

c. Evaluate search and seizure issues.

d. Evaluate/establish the path of scene entry/exit.

e. Evaluate initial scene boundaries.

f. Determine/prioritize the scene investigation(s).

g. Establish a staging area for consultation and equipment.

h. Establish communication between individuals at multiple scenes (as necessary).

i. Establish a secure area for temporary evidence storage.

j. Determine additional resource requirements.

k. Ensure scene integrity/security.

l. Ensure that witnesses to the incident are identified and separated.

m. Ensure that the surrounding area is canvassed.

n. Ensure preliminary documentation/photography.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to obtain information from the ***first responder;*** evaluate safety and search and seizure issues; evaluate scene boundaries and entry and exit path(s); prioritize investigative activities; allocate current resources and determine the need for additional resources; ensure that witnesses are separated and identified, the area is canvassed, and the scene is secured and properly photographed and documented; and establish, if necessary, areas for consultation and storage of equipment and evidence.

1. Conduct Scene Assessment

a. Talk to the first responder regarding his/her observations/activities.

1. Introduce yourself and explain role.
2. Obtain information regarding the incident.
3. Ascertain established scene boundaries.
4. Ascertain previously chosen pathway.

b. Evaluate safety issues for personnel entering the scene.

1. Re-evaluate and modify, as necessary, current safety practices.
2. Require ***personal protective equipment (PPE)*** as appropriate.

c. Evaluate search and seizure issues.

1. Determine the need for obtaining consent to search.
2. Determine the need for obtaining a search warrant.
3. Determine the need for prosecutorial/legal resources.

d. Evaluate/establish the path of scene entry/exit.

1. Establish pathway by reassessing and modifying, as necessary, the chosen pathway.
2. Ensure that authorized personnel are informed of any modifications to the established pathway.

e. Evaluate initial scene boundaries.

1. Determine appropriateness of the initial scene boundaries.
2. Ensure that the areas where the crime occurred are secure.
3. Ensure that the areas that are potential points and paths of entry/exit of suspects/witnesses are secure.
4. Ensure that areas where victim(s)/evidence may have moved or been moved are secure.
5. Make modifications as necessary.

f. Determine/prioritize the scene investigation(s).

1. Determine the size and number of scene(s).
2. Prioritize the steps in the scene investigation(s).
3. Allocate current resources.

g. Establish a staging area for consultation and equipment.

1. Identify an area in close proximity to the scene.
2. Identify an area not involved in the incident.
3. Secure the staging area and limit access.

h. Establish communication between individuals at multiple scenes (as necessary).

1. Establish type of communication equipment to be used.

NOTE: When selecting equipment, consider security of communication.

2. Update with current information as necessary.

i. Establish a secure area for temporary evidence storage.

1. Evaluate environmental factors that could effect degradation/loss of evidence when selecting a secure area for temporary evidence storage.

2. Establish a secure area for temporary storage for evidence.

NOTE: Consider rules of evidence/***chain of custody.***

j. Determine additional resource requirements.

1. Determine the need for additional investigative resources.
2. Determine the need for specialized units.
3. Determine the need for legal consultation.
4. Determine the need for specialized equipment/supplies.
5. Request additional resources as determined.

k. Ensure scene integrity/security.

1. Maintain scene entry/exit documentation.
2. Prevent unauthorized access to the scene.

l. Ensure that witnesses to the incident are identified and separated.

1. Ascertain potential witnesses.
2. Separate witnesses from each other and from others present.
3. Obtain valid identification from witnesses.
4. Document witness identification(s).

m. Ensure that the surrounding area is canvassed.

1. Assign appropriate personnel to conduct the canvass.
2. Ensure that results of the canvass are documented.

NOTE: Documentation should also include locations where persons are not found for future followup.

n. Ensure preliminary documentation/photography.

NOTE: The purpose of this section is to ensure that the presence and/or appearance of items, persons, and conditions that are likely to be lost if not immediately documented or photographed are recorded (see section A7a,b).

1. Photograph or document items that may change.
2. Photograph or document conditions that may change.
3. Photograph or document persons, including injuries or lack thereof.

2. Conduct Scene "Walk-Through" and Initial Documentation

a. Minimize scene contamination.

b. Prepare preliminary documentation.

c. Identify and protect fragile/perishable evidence.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to establish and follow the established pathway to conduct a preliminary walk-through, to document initial observations, and to identify, document, and protect the integrity/security of the evidence.

2. Conduct Scene "Walk-Through" and Initial Documentation

a. Minimize scene contamination.

1. Use established entry/exit points and pathway.
2. Determine the need for personal protective equipment prior to entry.
3. Conduct walk-through with individuals responsible for processing the scene, if available.

b. Prepare preliminary documentation.

NOTE: Document factual observations, not opinions.

1. Document scene as first observed (e.g., preliminary photograph, rough sketch, notes).

c. Identify and protect fragile/perishable evidence.

1. Evaluate crowds/hostile environment(s) and ensure that evidence is secure, as necessary.
2. Evaluate weather conditions and ensure that evidence is protected, as necessary.
3. Identify fragile/perishable evidence.
4. Ensure documentation/photography of fragile/perishable evidence (immediately, if possible).
5. Ensure collection of fragile/perishable evidence, as appropriate.

Section C

Processing the Scene

1. **Determine Team Composition**
2. **Ensure Contamination Control**
3. **Document the Scene**
4. **Prioritize Collection of Evidence**
5. **Collect, Preserve, Inventory, Package, Transport, and Submit Evidence**

Section Performance Objective

At the conclusion of this training, the student is expected to demonstrate scene processing practices. These practices include the ability to select the team, knowledge of contamination issues, documentation of the scene, prioritization of the collection of evidence, and the actual collection and subsequent handling of the evidence. The student is expected to demonstrate competence in each of the topic areas through testing—either written, practical, or both.

1. Determine Team Composition

a. Assess the need for additional personnel.

b. Assess forensic needs.

c. Ensure scene(s) security.

d. Select qualified person(s) for specialized tasks.

e. Document team member assignments.

Performance Objective The student is expected to demonstrate the ability to assess the scene by evaluating the factors that determine team composition. Given a crime scene scenario, the student also is expected to assess the need for additional personnel resources to ensure complete scene processing.

1. Determine Team Composition

a. Assess the need for additional personnel. Consider:

1. ***Multiple scenes*** (see glossary).

NOTE: Multiple scenes may involve multiple jurisdictions.

2. Multiple victims.
3. Numerous witnesses.

NOTE: Separate and interview.

4. Additional resources (e.g., lighting, ladders, fire department, air support).
5. Other circumstances that may require the preservation and recovery of evidence, such as parties or vehicles that may be transported to a different location (e.g., hospital, law enforcement facility, impound lot, medical examiner/coroner's office).
6. Specific crimes may require other specialized personnel (e.g., forensic nurse, gang crime units, other Federal or State agencies. Individual departments may determine that a public information officer is necessary).

b. Assess forensic needs.

NOTE: If in doubt consult/call outside sources.

1. Determine what forensic specialists are needed (e.g., ***latent print*** analyst, bloodstain/blood-spatter analyst, forensic anthropologist, accident reconstructionist).
2. Determine what specialized equipment is needed (see section E).

c. Ensure scene(s) security.

1. Identify the individual responsible for maintaining entry/exit documentation.

2. Maintain entry/exit documentation.
3 Maintain security of scene boundaries.

d. Select qualified person(s) for specialized tasks.

1. Identify photographic needs (e.g., aerial, underwater).
2. Identify sketch needs.
3. Identify special evidence collection needs (e.g., latent prints, firearms, blood spatter, trace evidence, arson/bomb, forensic anthropology).

e. Document team member assignments.

1. Establish task priority.
2. Assign tasks to ***team members.***
3. Record member responsibilities.
4. Ensure that assigned tasks are completed.

2. Ensure Contamination Control

a. Limit scene access to people directly involved in scene processing.

b. Follow established entry/exit pathways at the scene.

c. Consider collection of elimination samples.

d. Designate a secure area for trash and equipment.

e. Use personal protective equipment (PPE) to prevent contamination of personnel and minimize scene contamination.

f. Clean/sanitize/dispose of tools/equipment between evidence collections.

g. Use single-use equipment for direct collection of biological samples.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the knowledge of contamination control issues at a crime scene.

2. Ensure Contamination Control

a. Limit scene access to people directly involved in scene processing.

1. Identify essential personnel.
2. Identify nonessential personnel.
3. Remove nonessential personnel from the scene.

b. Follow established entry/exit pathways at the scene.

1. Identify scene entry/exit pathway.
2. Use established entry/exit pathway.
3. Maintain established entry/exit pathway.

c. Consider collection of elimination samples.

NOTE: See definition of elimination sample in the glossary.

1. Identify first responders and involved parties.
2. Consider the value of elimination samples.
3. Collect elimination samples, as necessary (see section C5g).

NOTE: Collect elimination samples of value from first responders and involved parties before they leave the scene.

d. Designate a secure area for trash and equipment.

1. Identify area(s) away from potential evidence.
2. Establish separate area(s) for trash generated in the course of the scene investigation.
3. Establish area(s) as site for equipment.
4. Assign responsibility for removal of trash.

e. Use personal protective equipment (PPE) to prevent contamination of personnel and minimize scene contamination.

1. Assess potential hazards.
2. Utilize relevant PPE.
3. Dispose of PPE in biohazard receptacle.

f. Clean/sanitize/dispose of tools/equipment between evidence collections.

1. Utilize ***clean*** or ***single-use tools/equipment.***
2. Dispose of single-use tools/equipment in biohazard or sharps containers after use (e.g., gloves, forceps, scalpels, pipets).
3. Clean reusable equipment before collection of each new piece of evidence.
4. Clean reusable equipment before storage.

g. Use single-use equipment for direct collection of biological samples.

1. Identify biological evidence to be collected.
2. Identify single-use collection material (e.g., swabs, swatches, other items that come in direct contact with evidence to be collected).

NOTE: Ensure that there is ample packaging material so each item can be individually packaged to minimize ***cross-contamination.***

3. Document the Scene

a. Determine the type of documentation necessary for the specific scene.

b. Coordinate documentation of the scene.

c. Photograph the scene.

d. Videotape the scene as an optional supplement to photographs.

e. Prepare preliminary sketch(es) and take measurements.

f. Generate notes at the scene (e.g., photo logs, checklists, evidence log, chain of custody forms, detailed condition of the item(s)).

Performance Objective Given a crime scene scenario, the student is expected to determine the type of documentation necessary for a specific scene. The student also is expected to write a full report based on his/her notes, photograph the scene, and draw sketches.

3. Document the Scene

a. Determine the type of documentation necessary for the specific scene.

1. Determine if photographs, videos, sketches, or measurements are needed.
2. Determine if forms are needed to supplement note taking, (e.g., photo logs, checklists, evidence log, chain of custody forms).

b. Coordinate documentation of the scene.

NOTE: Assign or prioritize documentation; ensure that all documentation ultimately bears the unique identifier(s) assigned to the case.

1. Coordinate photographing of the scene.
2. Coordinate videotaping of the scene.
3. Coordinate sketching of the scene.
4. Coordinate measurements of specific scene items.
5. Coordinate notes.

c. Photograph the scene.

NOTE: Ensure that photographs taken depict a fair and accurate representation of the scene/items photographed.

1. Take overall scene photographs.
2. Take medium-range scene photographs.

3. Take close-up scene photographs.
4. Photograph evidence with and without ***measurement scales*** and/or ***evidence identifiers.***

NOTE: Instruct when to photograph with and without measurement scale and/or identifiers with appropriate evidence items.

5. Photograph victims, suspects, witnesses, crowds, and vehicles at the scene as relevant.
6. Photograph from various perspectives as relevant (e.g., aerial, witness' view, area under body once body is removed).

d. Videotape the scene as an optional supplement to photographs.

NOTE: Consider switching audio off according to jurisdictional requirements.

1. Determine if videotaping is needed (e.g., at a homicide, a large scene, an officer-involved incident, or a large amount of evidence).
2. Ensure that new tape is used.
3. Break off write-protect tab after taping to prevent accidental overwrite.

e. Prepare preliminary sketch(es) and take measurements.

1. Measure the immediate area of the scene.
2. Indicate "North" on the sketch.
3. Indicate that the sketch is "not to scale."
4. Measure the relative location of evidence for future correlation with evidence records.

NOTE: Instruct on particular measurement techniques (e.g., triangulation, coordination, use of a legend).

5. Measure the evidence prior to movement.
6. Measure rooms, furniture, and other objects relevant to the scene.
7. Measure the distance to adjacent buildings or other landmarks (e.g., mile markers, bridges, manhole covers, silos).
8. Consider additional sketches that may be useful to focus attention on a particular area or item.

f. Generate notes at the scene (e.g., photo logs, checklists, evidence log, chain of custody forms, detailed condition of the item(s)).

1. Document the scene location.
2. Document time of arrival at the scene.
3. Document time of departure from the scene.
4. Document scene appearance.
5. Record ***transient evidence*** (e.g., smells, sounds, sights).
6. Record environmental conditions (e.g., weather, temperature).
7. Document circumstances that require departures from usual procedures (e.g., safety, environmental, traffic issues).

4. Prioritize Collection of Evidence

a. Conduct a careful and methodical evaluation considering all physical evidence possibilities.

b. Focus first on easily accessible areas in open view and proceed to out-of-view locations (e.g., biological, latent prints, trace evidence).

c. Select a systematic search pattern for evidence collection.

d. Select a progression of processing/collection methods.

e. Continually assess environmental and other factors that may affect evidence.

f. Be aware of multiple scenes.

g. Recognize other methods that are available to locate, technically document, and collect evidence.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to prioritize the collection of evidence.

4. Prioritize Collection of Evidence

a. Conduct a careful and methodical evaluation considering all physical evidence possibilities.

1. Identify present types of evidence (e.g., biological, latent prints, trace evidence).
2. Consider potential evidence collected prior to this stage by EMTs, etc., which may have been moved or removed from the scene.

b. Focus first on easily accessible areas in open view and proceed to out-of-view locations (e.g., biological, latent prints, trace evidence).

1. Identify areas that need to be processed immediately (e.g., due to safety, weather, security, scene integrity, high-traffic areas).
2. Identify areas that can be processed at a later time (e.g., vehicle, additional scene, areas protected from threats in (1) above).

c. Select a systematic search pattern for evidence collection.

1. Determine the size and location of the scene(s).
2. Determine the number of personnel available.
3. Select the best method for searching the scene (e.g., spiral, grid, zones).

d. Select a progression of processing/collection methods.

1. Identify which items need to be collected as evidence.
2. Identify the most transient evidence and prioritize processing.
3. Prioritize processing/collection methods so initial techniques do not compromise subsequent processing/collection methods (e.g., collection of biological or trace evidence should be performed prior to use of powder or ***chemical enhancement*** techniques).

e. Continually assess environmental and other factors that may affect evidence.

1. Monitor environmental and other factors that may affect evidence.
2. Reprioritize collection, if warranted, based on conditions.

f. Be aware of multiple scenes.

1. In case of multiple scenes, prioritize the response (e.g., victims, suspects, vehicles, locations).

g. Recognize other methods that are available to locate, technically document, and collect evidence.

NOTE: Consider consulting with forensic/laboratory personnel for additional technical advice.

1. Assess the scene to determine if other methods are needed to aid in the prioritization of scene processing (e.g., ***alternate light source,*** enhancement, blood pattern documentation, ***projectile trajectory analysis***).
2. Determine availability of needed techniques.
3. Prioritize collection methods based on availability of additional resources.

5. Collect, Preserve, Inventory, Package, Transport, and Submit Evidence

a. Maintain scene security throughout processing and until the scene is released.

b. Document the location, date, and who collected the evidence.

c. Collect items identified as evidence (see glossary).

d. Establish chain of custody.

e. Obtain standard/reference samples from the scene.

f. Obtain control samples from the scene.

g. Obtain elimination samples (as necessary).

h. Secure electronically recorded evidence from the vicinity of the scene (immediately).

i. Identify and secure evidence in proper containers.

j. Document the description and condition of firearms/weapons (prior to rendering them safe).

k. Avoid excessive handling of evidence after it is collected.

l. Maintain evidence at the scene in a manner designed to diminish degradation/loss.

m. Transport and submit evidence for secure storage.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate all aspects of scene processing, including the collection, preservation, inventory, packaging, transportation, and submission of physical evidence. The student also is expected to take notes; collect various types of evidence, including latent prints, footwear or tire impression(s), ***biological fluids***/stains, trace evidence, firearms evidence, questioned documents, volatiles, and drugs; establish chain of custody; and write a report. The student also is expected to distinguish the difference between ***control,*** standard/reference, and elimination samples.

5. Collect, Preserve, Inventory, Package, Transport, and Submit Evidence

a. Maintain scene security throughout processing and until the scene is released.

1. Identify essential and nonessential personnel.
2. Remove nonessential personnel from the scene.
3. Continue to document entry/exit of persons at the scene.

b. Document the location, date, and who collected the evidence.

1. Ensure that the location of evidence at the scene is documented (see section C3).
2. Ensure that the date of collection is documented.

3. Ensure that the identity of the individual making the collection is documented.
4. Ensure that the description of item(s) to be collected is documented.

NOTE: The following examples of evidence collection techniques are meant to be illustrative and are not meant to be exhaustive or exclusive.

c. Collect items identified as evidence (see glossary).

1. Impression evidence collection.
2. Latent print evidence collection.
3. Biological evidence collection.
4. Arson/explosive/bomb evidence collection.
5. Trace evidence collection.
6. Questioned documents/electronic evidence collection.
7. Reconstruction evidence collection.
8. Controlled substances/chemicals evidence collection.
9. Other types of evidence.

c1. Impression evidence collection.

NOTE: Consider the different types of impression evidence, such as macroscopic (those that are visible with the naked eye, e.g., footwear and tire), and microscopic (those that may need magnification, e.g., latent prints, toolmarks, cartridge cases, weapons, bullets, bitemarks, fingernails).

a. **Locate** by using visual observation techniques (NOTE: When collecting firearms or other weapons, refer to section C5j); lighting techniques (e.g., oblique, alternate light source); or chemical enhancement techniques (e.g., powder, super glue, dyes, luminol).

b. **Develop** by using photography (e.g., using filters along with an alternate light source) or chemical enhancement.

c. **Collect** by using photography, physical lifters (e.g., gel lifters, dental stone, electrostatic lifters, molding materials, lifting tape), or by taking the actual item.

d. **Consider** collection of elimination samples (see section C5g).

e. **Ensure** proper packaging of individual items of evidence (see section C5i, k-m), that the location of evidence at the scene is documented, that the date of collection is documented (see section C3), that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c2. Latent print evidence collection.

(e.g., fingerprints, palmprints, footprints.)

a. **Locate** by using visual observation techniques, lighting techniques (e.g., oblique, alternate light source), chemical enhancement techniques (e.g., super glue, dyes, luminol, powders).

b. **Develop** by using photography (e.g., using filters along with an alternate light source), chemical enhancement techniques, or powder enhancement techniques.

c. **Collect** by using photography, physical lifters (e.g., electrostatic lifters, lifting tape/adhesive, silicon casting material), or by taking the actual item.

d. **Consider** collection of elimination samples (see section C5g).

e. **Ensure** proper packaging of individual items of evidence (see section C5i, k-m), that the location of evidence at the scene is documented (see section C3), that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c3. Biological evidence collection.

(e.g., blood, semen, saliva (bitemarks), urine, perspiration, sexual assault evidence, tissue, bone, teeth, hair, fingernails.)

a. **Locate** by using visual observation techniques, lighting techniques (e.g., oblique, alternate light source), or chemical enhancement techniques (e.g., by use of luminol, ***presumptive tests***).

b. **Collect** the stained portion by using single-use equipment (e.g., swabs, threads, gauze patches) and by taking the actual item (e.g., scrape with scalpel, cut out portion of substrate).

c. **Collect** the whole item (e.g., stained door, clothing) or a representative sample (e.g., portion of blood trail, pooling of blood, by pattern(s)).

d. **Collect** control/***blank samples*** (as necessary, see section C5f).

e. **Ensure** proper packaging of individual items of evidence (see section C5i, k-m), that the location of evidence at the scene is documented (see section C3), that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c4. Arson/explosive/bomb evidence collection.

NOTE: Following an explosion, investigators should be aware of the possibility of secondary explosive device(s).

a. **Request** subject-matter experts to respond to the scene.

NOTE: If the following types of evidence are present, specialized personnel with protective equipment and training (e.g., arson investigators, accelerant detection canine team) are expected to collect: accelerants, burn patterns, explosive residue, bombs, explosives, etc. When it is not possible for a specialized team to conduct the investigation, the following steps can be taken. (However, only bomb disposal personnel should investigate unexploded bombs or handle live explosives.)

b. **Locate** by using visual observation techniques and smell.

c. **Document** by photography, videography, written notes, and sketches/diagrams.

d. **Collect** by scooping ignitable liquid residues with a noncontaminated shovel, taking and packaging exploded bomb components, and taking sources of ignitable liquid residues.

NOTE: Handle with gloves to avoid leaving fingerprints on the evidence.

e. **Consider** collection of control/blank samples (see section C5f).

NOTE: In arson, in addition to control/blank samples, also take a burned sample from an area removed from the point of origin of the fire.

f. **Ensure** proper packaging of individual items of evidence (see sections C5i, k-m), that containers prevent loss of volatile evidence by using ***nonporous containers***, that the location of evidence at the scene is documented (see section C3), that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c5. Trace evidence collection.

(e.g., hairs, fibers, glass, paint, gunshot residue (gsr), entomological evidence, botany, soil, cosmetics, oils/plastics.)

a. **Locate** by using visual observation techniques, lighting techniques (e.g., oblique, alternate light source), and taping techniques.

b. **Collect** by using manual methods (e.g., tweezers, forceps, gloved hand), taping techniques, scraping techniques, vacuum techniques (NOTE: Use this method of collection as a last resort), and by taking the whole item on which the trace evidence is located (e.g., rock with hair, bumper with paint, carpeting).

c. **Consider** collection of control/blank and standard/reference samples (see sections C5e-f).

d. **Ensure** proper packaging of individual items of evidence (see sections C5i, k-m), that the location of evidence at the scene is documented (see section C3), that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c6. Questioned documents/electronic evidence collection.

NOTE: Documents may be significant for the substance of what is stated (e.g., ransom notes, suicide notes, forged documents) and/or the nature of the physical evidence found in the document (e.g., ink, handwriting, paper). Standard/reference samples should be collected for ***comparison*** purposes. Potential electronic evidence may include computers, answering machine tapes, videotapes, pagers, etc. Follow jurisdictional laws regarding search and seizure of electronic evidence.

a. **Consider** consulting with electronic evidence experts for proper method(s) of collection.

NOTE: Personnel specifically trained in electronic crime investigation may be needed, since unplugging or disconnecting electronic devices could result in the loss of electronically stored data/evidence.

b. **Locate** evidence by using visual observation techniques, lighting techniques.

c. **Collect** by taking the whole item.

d. **Collect** standard/reference samples (see section C5e).

e. **Ensure** proper packaging of individual items of evidence (see section C5i, k-m), that the location of evidence at the scene is documented, that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c7. Reconstruction evidence collection.

a. **Determine** usefulness of reconstructive techniques.

NOTE: Reconstructive techniques can be helpful to demonstrate a sequence of events, location of the parties involved, characteristics of the parties involved, or to corroborate or disprove statements.

b. **Recognize** the significance of blood spatter interpretation, the significance of projectile trajectory reconstruction (e.g., glass fracture, laser, bullet path, stringing techniques), the significance of accident reconstruction, the significance of excavated human remains, the significance of a burial site and the surrounding area and the value of each as a separate crime scene, the significance of skeletal remains, and the significance of preserving evidence that specialists may use for reconstructive techniques (e.g., facial reconstruction, post mortem interval (time of death) determination, detection of administered chemicals/poisons, and forensic odontology for bitemark identification or identification of human remains).

c. **Locate** by applicable methods (e.g., visual observation, lighting, lasers, chemical enhancement).

d. **Document** by applicable methods (e.g., photographic, videographic, sketch with measurement).

c8. Controlled substances/chemicals evidence collection.

NOTE: If dangerous substances, such as clandestine laboratory evidence, chemicals/poisons, industrial waste, or acids are present, specialized personnel with protective equipment and training should collect them. When it is not possible for a specialized team to conduct the investigation, the following steps can be taken.

a. **Re-evaluate** safety issues (see section A2a for discussion of safety concerns to be re-addressed).

b. **Locate** evidence by using visual observation (e.g., paraphernalia, pipes, glassine packets), alternate light sources, drug detecting animals, field testing techniques (NOTE: Presumptive test to indicate the presence of a controlled substance), and by being aware of and noting odors that could indicate the presence of chemicals and/or reaction mixtures.

c. **Collect** by sampling of clandestine laboratory chemicals and by taking item(s) of evidence.

d. **Ensure** proper packaging of individual items of evidence (see sections Ci, j-m), that the location of evidence at the scene is documented, that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

c9. Other types of evidence.

NOTE: All other evidence related to the crime that may not fit into one of the above categories (e.g., car parts, botanical evidence, physical matching evidence, toxicological evidence, poisons).

a. **Locate** unique types of evidence.

b. **Collect** unique types of evidence

c. **Consider** collection of control/blank, standard/reference, and elimination samples (see sections C5e-g).

d. **Ensure** proper packaging of individual items of evidence (see sections C5i, j-m), that the location of evidence at the scene is documented (see section C3), that the date of collection is documented, that the identity of the individual making the collection is documented, and that the description of item(s) to be collected is documented.

d. Establish chain of custody.

1. Initiate documentation of custody of evidence.

NOTE: This can be accomplished with evidence identifiers, chain of custody forms, direct marking of the evidence item(s), etc.

e. Obtain standard/reference samples from the scene.

NOTE: If collected, standard/reference samples should be collected at the same time as the evidence. This timeframe may not apply to the collection of blood standards or hair exemplars from the victim(s)/suspect(s).

1. Determine if standard/reference samples are needed.
2. Identify standard/reference samples.
3. Collect standard/reference samples.
4. Package samples individually.

f. Obtain control samples from the scene.

1. Determine if control samples are needed.

NOTE: If collected, control samples should be collected at the same time as evidence.

2. Identify control samples.
3. Collect control samples.
4. Package samples individually.

g. Obtain elimination samples.

1. Determine if elimination samples are needed.
2. Identify and collect elimination samples.
3. Package samples individually.

h. Secure electronically recorded evidence from the vicinity of the scene (immediately).

NOTE: e.g., answering machine tapes/voice mail, surveillance camera videotapes (including those of neighboring businesses), computers, cell phones, pagers, caller id, fax machines, e-mail, and peripherals.

1. Determine if electronic evidence is present.

NOTE: Determine whether personnel specifically trained in electronic crime investigation are required to collect the evidence, since unplugging or disconnecting electronic devices could result in the loss of electronically stored data/evidence.

2. Collect electronic evidence.

NOTE: Follow jurisdictional laws regarding search and seizure of electronic evidence.

i. Identify and secure evidence in proper containers.

1. Identify characteristics of evidence to be packaged.
2. Select a proper container based on the characteristics of the evidence (e.g., nonporous (liquids or volatile substances, powdered controlled substances), ***porous*** (dried biological evidence, trace evidence), crushproof (glass fragments, sharps, pills/capsules)).
3. Ensure evidence is in proper condition for packaging.

NOTE: If biological or organic evidence is not completely dry, prior to packaging and sealing, package it in a temporary container until a suitable location is reached to dry it.

4. Place evidence in container.

NOTE: Determine whether individual items should be packaged separately to minimize cross-contamination and/or contamination. If items are wet, double or triple bag. However, if items are found already in contact with one another, package them together (e.g., clothing, trash, weapons w/blood or hair, bedding).

5. Label, date, initial, and seal evidence container(s).

NOTE: When packaged items are wet, prevent packages from coming in contact with one another to prevent cross-contamination.

6. Ensure that an inventory list of items of evidence collected/to be collected is begun and maintained.

7. Use a secure area for storage of evidence while scene processing proceeds and retain packaged evidence in the designated secure area until transport to the appropriate facility (see section B1i).

NOTE: Ensure step-by-step packaging for items when needed (e.g., paint sample—porous first, then crushproof; drugs—plastic bags or crushproof; blood—porous; trace—porous/crushproof).

j. Document the description and condition of firearms/weapons prior to rendering them safe.

NOTE: Refer to section C5c1 for collection and packaging of impression evidence.

1. Use additional close-up photography to document any evidence that may be on or near the weapon.

2. Record the physical condition of the weapon.

NOTE: For firearms, record whether cocked, cocked and locked, and whether there is a magazine in the weapon. For all weapons, record whether any biological or trace evidence, etc., is adhering to the weapon.

3. Determine and record the best method for rendering the weapon safe.

NOTE: For firearms, e.g., put safety on; unload; if found in water maintain immersed in water; place in gun box, etc. For sharps, package in puncture-proof container, etc. Record the location of any spent or live shell cases under the hammer or any cartridge or cartridge cases (live or spent rounds) in firearms.

4. Identify the weapon.

NOTE: For firearms, record the make, model, caliber, and serial number, if readily observable. For all weapons, record the physical description, including markings.

k. Avoid excessive handling of evidence after it is collected.

NOTE: Include information on all persons having custody of the evidence as evidence is transferred from person to person or place to place.

1. Avoid reopening sealed evidence once it is packaged.

2. Limit the number of people in the chain of custody.

l. Maintain evidence at the scene in a manner designed to diminish degradation/loss.

1. Utilize the secure area for temporary storage of evidence.
2. Ensure that temporarily maintained evidence is kept in a cool, dry environment, protected from temperature extremes and other environmental insults (e.g., air conditioned vehicle/building, cooler).

m. Transport and submit evidence for secure storage.

1. Check inventory of evidence prior to transport and ensure all evidence collected is accounted for.
2. Maintain the integrity of individual items of evidence so as to avoid compromising evidence yet to be processed (e.g., latent prints on a physical item).
3. Determine whether specialized equipment is needed to transport unusual items of evidence.
4. Ensure transport to appropriate facility as soon as possible.

NOTE: When it is not possible to transport evidence quickly due to weather or other delays, ensure that the chain of custody is maintained and the integrity of evidence is not compromised.

Section D

Completing and Recording the Crime Scene Investigation

1. **Establish Crime Scene Debriefing Team**
2. **Perform Final Survey of the Crime Scene**
3. **Documentation of the Crime Scene**

Section Performance Objective

At the conclusion of this training section, the student is expected to demonstrate the ability to complete and document the processing of a crime scene. This includes knowing how to facilitate a crime scene debriefing with appropriate personnel prior to release of the scene and how to prioritize forensic testing options and the proper sequence of potential forensic testing to maximize the utility of all evidence collected. It also includes knowing how to compile the documentation of the crime scene. The student is expected to demonstrate competence in each of the topic areas through testing—either written, practical, or both.

1. Establish Crime Scene Debriefing Team

a. Determine person(s) who may participate in the crime scene debriefing.

b. Determine what evidence was collected.

c. Discuss preliminary scene findings.

d. Discuss potential forensic evidence testing and sequencing/prioritizing of tests/examinations.

e. Initiate any action(s) identified in the debriefing to complete the crime scene investigation.

f. Brief person(s) in charge upon completion of assigned crime scene tasks.

g. Establish post-scene responsibilities.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to conduct a crime scene debriefing with appropriate personnel prior to release of the scene. The debriefing is expected to include a discussion of observations made, evidence collected, forensic testing, and other actions necessary to complete the crime scene investigation, including the ability to recognize and prioritize forensic testing options and the proper sequence of potential forensic testing to maximize the utility of all evidence collected and post-scene responsibilities.

1. Establish Crime Scene Debriefing Team

NOTE: The investigator(s) in charge should be responsible for the crime scene debriefing.

a. Determine person(s) who may participate in the crime scene debriefing.

NOTE: Composition of the team is scene dependent and may consist of only one officer.

1. ***Initial responding officer(s).***
2. Additional police personnel (e.g., other investigators, canvassing officer, perimeter security, dispatcher, interviewing officer(s), officer(s) controlling and/or assisting victim(s), witness(es), and suspect(s)).
3. Evidence collection personnel (e.g., photographer(s), evidence technician(s), latent print personnel, specialized personnel).
4. Emergency services personnel (e.g., fire, medical, search and rescue).
5. Prosecuting attorney (when appropriate).

b. Determine what evidence was collected.

1. Review evidence documentation (e.g., inventories, tags, notes).
2. Communicate with evidence collection personnel and additional police personnel who may have collected evidence.

c. Discuss preliminary scene findings.

NOTE: Discussion should be topic specific depending on the personnel to whom the investigator(s) in charge is speaking.

1. Communicate with personnel regarding what they observed.
2. Communicate with personnel regarding what they were told.
3. Communicate with personnel regarding what actions they performed.

d. Discuss potential forensic evidence testing and sequencing/prioritizing of tests/examinations.

NOTE: Discussion should be topic specific depending on the personnel to whom the investigator(s) in charge is speaking.

1. Communicate with evidence collection personnel.
2. Communicate with other specialized personnel.
3. Communicate with prosecuting attorney (when appropriate).

NOTE: In some jurisdictions, depending on the evidence in question and the nature of the crime, investigators in charge should communicate with the prosecuting attorney's office before making decisions that potentially may compromise the evidence.

e. Initiate any action(s) identified in the debriefing to complete the crime scene investigation.

1. Identify actions necessary to complete the processing of the crime scene.

NOTE: Consider areas that may not have been searched/processed and confirm that all assigned tasks have been completed.

2. Identify actions necessary to protect the crime scene(s).
3. Assign responsibilities to appropriate personnel.

NOTE: This may include personnel not present at the scene or debriefing.

f. Brief person(s) in charge upon completion of assigned crime scene tasks.

1. Communicate with team members.
2. Communicate with the prosecuting attorney (when appropriate).
3. Communicate with and elicit advice and instruction for crime scene evaluation from superiors, when appropriate.

g. Establish post-scene responsibilities.

1. Assign tasks to law enforcement personnel.
2. Assign tasks to other responders (see glossary).

NOTE: Avoid unnecessary communication with individuals not directly involved in the investigation. Investigators in charge should use caution in releasing any information that may compromise the investigation or potential prosecution.

2. Perform Final Survey of the Crime Scene

a. Perform visual inspection of each area of the crime scene(s).

b. Collect any evidence remaining at the scene(s).

c. Remove all equipment and materials used or generated during the investigation.

d. Secure any dangerous materials or conditions remaining at the scene.

e. Release the crime scene.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate the ability to perform a final walk-through of the crime scene to ensure that all evidence is collected, equipment and materials used or generated during the investigation are removed, and dangerous materials or conditions are identified and reported prior to release of the scene.

2. Perform Final Survey of the Crime Scene

a. Perform visual inspection of each area of the crime scene(s).

1. Determine the need for personal protective equipment (PPE) (appropriate for scene re-entry).
2. Conduct a walk-through (with individuals responsible for processing the scene, if available).
3. Visually inspect for evidence not previously collected.
4. Visually inspect for equipment and materials generated by the investigation.
5. Visually inspect for dangerous materials or conditions.

b. Collect any evidence remaining at the scene(s).

NOTE: This may require personnel not present at the scene or debriefing.

1. Assign appropriate personnel to collect evidence identified during the debriefing.
2. Assign appropriate personnel to collect evidence identified during the walk-through.

c. Remove all equipment and materials used or generated during the investigation.

1. Assign appropriate personnel to remove equipment and materials identified during the debriefing.
2. Assign appropriate personnel to remove equipment and materials identified during the walk-through.

d. Secure any dangerous materials or conditions remaining at the scene.

1. Report any dangerous materials or conditions remaining at the scene to appropriate individuals or agencies for corrective action.
2. Notify individuals who may be exposed to dangerous conditions remaining at the scene.

NOTE: The extent of notification depends on the level of danger.

3. Take preventive measures to minimize the danger to others (e.g., before leaving a building, lock doors and windows to prevent unauthorized access).

e. Release the crime scene.

1. Observe jurisdictional requirements for release.
2. Notify person(s) involved with the investigation that the scene has been released.
3. Remove crime scene barriers (e.g., crime scene tape, cones).

3. Documentation of the Crime

a. Generate the crime scene(s) case file.

b. Ensure preservation of case file documentation.

Performance Objective Given a crime scene scenario, the student is expected to demonstrate an ability to compile a ***case file*** and secure it pursuant to appropriate departmental guidelines/policies and procedures. The student also is expected to ensure that all necessary documentation that constitutes the record of all actions and evidence collected at the scene(s) is placed in the crime scene case file such that it may be accessed for independent review.

3. Documentation of the Crime Scene

D

a. Generate the crime scene(s) case file.

NOTE: The following elements should not be considered a comprehensive list of the documentation compiled in an investigative case file, but is limited to crime scene documentation.

1. Initial responding officer(s') documentation.
2. Emergency services personnel documentation.
3. Entry/exit documentation.
4. Photographs/video(s).
5. Crime scene sketches/diagrams.
6. Evidence documentation.
7. Other responder(s') report(s).
8. Record of consent form(s) or search warrant(s).
9. Other reports, such as forensic/technical reports (as they become available).

b. Ensure preservation of case file documentation.

NOTE: It should be recognized that a proper recordkeeping policy is an essential element of sound law enforcement.

1. Review guidelines/policies and procedures.

NOTE: It is recognized that some departments do not have written policies. While not encouraged, in such cases the routine practices of the department in maintaining records is in essence a policy.

2. Adhere to departmental guidelines/policy and procedures.

Section E

Crime Scene Equipment

1. **Initial Responding Officer(s)**
2. **Crime Scene Investigator/ Evidence Technician**
3. **Evidence Collection Kits (Examples)**

1. Initial Responding Officer(s)

Essential*

Consent/search forms.

Crime scene barricade tape.

First-aid kit.

Flares.

Flashlight and extra batteries.

Paper bags.

Personal protective equipment (PPE).

* These items should be in police vehicles or readily available to initial responding officer(s).

Optional

Audiotape recorder.

Camera with flash and extra film.

Chalk.

Directional marker/compass.

Disinfectant.

Maps.

Plastic bags.

Pocket knife.

Reflective vest.

Tape measure.

Tarps to protect evidence from the weather.

Traffic cones

Waterless hand wash (towelette with germicide).

Wireless phone.

2. Crime Scene Investigator/Evidence Technician

Essential*

Bindle paper.

Biohazard bags.

Body fluid collection kit.

Camera (35 mm) with flash/film/tripod.

Casting materials.

Consent/search forms.

Crime scene barricade tape.

Cutting instruments (knives, box cutter, scalpel, scissors).

Directional marker/compass.

Disinfectant.

Evidence collection containers.

Evidence identifiers.

Evidence seals/tape.

First-aid kit.

Flashlight and extra batteries.

High-intensity lights.

Latent print kit.

Magnifying glass.

Measuring devices.

Permanent markers.

Personal protective equipment (PPE).

Photographic scale (ruler).

Presumptive blood test supplies.

Sketch paper.

Tool kit.

Tweezers/forceps.

* These items should be in police vehicles or readily available to initial responding officer(s).

Optional

Audiotape recorder.

Bloodstain pattern examination kit.

Business cards.

Chalk.

Chemical enhancement supplies.

Entomology (insect) collection kit.

Extension cords.

Flares.

Forensic light source (alternate light source, UV lamp/laser, goggles).

Generator.

Gunshot residue kit.

Laser trajectory kit.

Maps.

Marking paint/snow wax.

Metal detector.

Mirror.

Phone listing (important numbers).

Privacy screens.

Protrusion rod set.

Reflective vest.

Refrigeration or cooling unit.

Respirators with filters.

Roll of string.

Rubber bands.

Sexual assault evidence collection kit (victim and suspect).

Shoe print lifting equipment.

Templates (scene and human).

Thermometer.

Traffic cones.

Trajectory rods.

Video recorder.

Wireless phone.

3. Evidence Collection Kits (Examples)

Blood Collection

Bindle.

Coin envelopes.

Disposable scalpels.

Distilled water.

Ethanol.

Evidence identifiers.

Latex gloves.

Photographic ruler (***ABFO scales***).

Presumptive chemicals.

Sterile gauze.

Sterile swabs.

Test tubes/test tube rack.

Bloodstain Pattern Documentation

ABFO scales.

Calculator.

Laser pointer.

Permanent markers.

Protractor.

String.

Tape.

Excavation

Cones/markers.

Evidence identifiers.

Metal detectors.

Paintbrushes.

Shovels/trowels.

Sifting screens.

String.

Weights.

Wooden/metal stakes.

Fingerprint

Black and white film.

Brushes.

Chemical enhancement supplies.

Cyanoacrylate (super glue) wand/packets.

Flashlight.

Forensic light source.

Lift cards.

Lift tape.

Measurement scales.

One-to-one camera

Powders.

Impression

Bowls/mixing containers.

Boxes.

Dental stone (die stone).

Evidence identifiers.

Measurement scales.

Permanent markers.

Snow print wax.

Water.

Pattern Print Lifter

Chemical enhancement supplies.

Electrostatic dust lifter.

Gel lifter

Wide format lift tape

Toolmarks

Casting materials.

Trace Evidence Collection

Acetate sheet protectors.

Bindle paper.

Clear tape/adhesive lift.

Flashlight (oblique lighting).

Forceps/tweezers.

Glass vials.

Slides and slide mailers.

Trace evidence vacuum with disposable collection filters.

Trajectory

Calculator.

Canned smoke.

Dummy.

Laser.

Mirror.

Protractor.

String.

Trajectory rods.

Glossary

Glossary

The definitions contained herein apply to terms as used in this document.

ABFO scales: (American Board of Forensic Odontology scales). An L-shaped piece of plastic used in photography that is marked with circles, black and white bars, and 18-percent gray bars to assist in distortion compensation and provide exposure determination. For measurement, the plastic piece is marked in millimeters.

Alternate light source: Equipment used to produce visible and invisible light at various wavelengths to enhance or visualize potential items of evidence (fluids, fingerprints, clothing fibers, etc.).

Bindle paper: Clean paper folded to use to contain trace evidence, sometimes included as part of the packaging for collecting trace evidence.

Biohazard bag: A container for materials that have been exposed to blood or other biological fluids and have the potential to be contaminated with hepatitis, AIDS, or other viruses.

Biological fluids: Fluids that have human or animal origin, most commonly encountered at crime scenes (e.g., blood, mucus, perspiration, saliva, semen, vaginal fluid, urine).

Biological weapon: Biological agents used to threaten human life (e.g., anthrax, smallpox, or any infectious disease).

Bloodborne pathogen: Infectious, disease-causing microorganisms that may be found or transported in biological fluids.

Boundaries: The perimeter or border surrounding potential physical evidence related to the crime.

Case file: The collection of documents comprising information concerning a particular investigation. (This collection may be kept in case jackets, file folders, ring binders, boxes, file drawers, file cabinets, or rooms. Subfiles are often used within case files to segregate and group interviews, media coverage, laboratory requests and reports, evidence documentation, photographs, videotapes, audiotapes, and other documents.)

Case identifiers: The alphabetic and/or numeric characters assigned to identify a particular case.

Chain of custody: A process used to maintain and document the chronological history of the evidence. (Documents should include name or initials of the individual collecting the evidence, each person or entity subsequently having custody of it, dates the items were collected or transferred, agency and case number, victim or suspect's name, and a brief description of the item.)

Chemical enhancement: The use of chemicals that react with specific types of evidence (e.g., blood, semen, lead, fingerprints) in order to aid in the detection and/or documentation of evidence that may be difficult to see.

Chemical threat: Compounds that may pose bodily harm if touched, ingested, inhaled, or ignited. These compounds may be encountered at a clandestine laboratory, or through a homemade bomb or tankard leakage (e.g., ether, alcohol, nitroglycerin, ammonium sulfate, red phosphorous, cleaning supplies, gasoline, or unlabeled chemicals).

Clean/sanitize: The process of removing biological and/or chemical contaminants from tools and/or equipment (e.g., using a mixture of 10-percent household bleach and water).

Collect/collection: The process of detecting, documenting, or retaining physical evidence.

Comparison samples: A generic term used to describe physical material/evidence discovered at crime scenes that may be compared with samples from persons, tools, and physical locations. Comparison samples may be from either an **unknown/questioned** or a **known** source.

Samples whose source is **unknown/questioned** are of three basic types:

1. Recovered crime scene samples whose source is in question (e.g., evidence left by suspects, victims).
2. Questioned evidence that may have been transferred to an offender during the commission of the crime and taken away by him or her. Such questioned evidence can be compared with evidence of a known source and can thereby be associated/linked to a person/vehicle/tool of a crime.
3. Evidence of an unknown/questioned source recovered from several crime scenes may also be used to associate multiple offenses that were committed by the same person and/or with the same tool or weapon.

Samples whose source is **known** are of three basic types:

1. A **standard/reference** sample is material of a verifiable/documented source which, when compared with evidence of an unknown source, shows an association or linkage between an offender, crime scene, and/or victim (e.g., a carpet cutting taken from a location suspected as the point of transfer for comparison with the fibers recovered from the suspect's shoes, a sample of paint removed from a suspect vehicle to be compared with paint found on a victim's vehicle following an accident, or a sample of the suspect's and/or victim's blood submitted for comparison with a bloodstained shirt recovered as evidence).
2. A **control/blank** sample is material of a known source that presumably was uncontaminated during the commission of the crime (e.g., a sample to be used in laboratory testing to ensure that the surface on which the sample is deposited does not interfere with testing. For example, when a bloodstain is collected from a carpet, a segment of unstained carpet must be collected for use as a blank or elimination sample).
3. An **elimination** sample is one of known source taken from a person who had lawful access to the scene (e.g., fingerprints from occupants, tire tread impressions from police vehicles, footwear impressions from emergency medical personnel) to be used for comparison with evidence of the same type.

Contamination: The unwanted transfer of material from another source to a piece of physical evidence.

Control/blank sample: See comparison samples.

Cross-contamination: The unwanted transfer of material between two or more sources of physical evidence.

Documentation: Written notes, audio/videotapes, printed forms, sketches and/or photographs that form a detailed record of the scene, evidence recovered, and actions taken during the search of the crime scene.

Dying declaration: Statements made by a person who believes he or she is about to die, concerning the cause or circumstance surrounding his or her impending death.

Elimination sample: See comparison samples.

Evidence identifiers: Tape, labels, containers, and string tags used to identify the evidence, the person

collecting the evidence, the date the evidence was gathered, basic criminal offense information, and a brief description of the pertinent evidence.

First responder(s): The initial responding law enforcement officer(s) and/or other public safety official(s) or service provider(s) arriving at the scene prior to the arrival of the investigator(s) in charge.

Impression evidence: Objects or materials that have retained the characteristics of other objects that have been physically pressed against them.

Initial responding officer(s): The first law enforcement officer(s) to arrive at the scene.

Investigator(s) in charge: The official(s) responsible for the crime scene investigation.

Known: See comparison samples.

Latent print: A print impression not readily visible, made by contact of the hands or feet with a surface resulting in the transfer of materials from the skin to that surface.

Measurement scale: An object showing standard units of length (e.g., ruler) used in photographic documentation of an item of evidence.

Multiple scenes: Two or more physical locations of evidence associated with a crime (e.g., in a crime of personal violence, evidence may be found at the location of the assault and also on the person and clothing of the victim/assailant, the victim's/assailant's vehicle, and locations the victim/assailant frequents and resides).

Nonporous container: Packaging through which liquids or vapors cannot pass (e.g., glass jars or metal cans).

Other responders: Individuals who are involved in an aspect of the crime scene, such as perimeter security, traffic control, media management, scene processing, and technical support, as well as prosecutors, medical personnel, medical examiners, coroners, forensic examiners, evidence technicians, and fire and rescue officers.

Personal protective equipment (PPE): Articles such as disposable gloves, masks, and eye protection that are used to provide a barrier to keep biological or chemical hazards from contacting the skin, eyes, and mucous membranes and to avoid contamination of the crime scene.

Porous container: Packaging through which liquids or vapors may pass (e.g., paper bags, cloth bags).

Presumptive test: A nonconfirmatory test used to screen for the presence of a substance.

Projectile trajectory analysis: The method for determining the path of a high-speed object through space (e.g., a bullet emanating from a firearm).

Radiological threat: The pending exposure to radiation energy. (This energy can be produced by short-wave x-rays or through unstable isotopes.)

Single-use equipment: Items that will be used only once to collect evidence, such as biological samples, then discarded to minimize contamination (e.g., tweezers, scalpel blades, droppers).

Standard/reference sample: See comparison samples.

Team members: Individuals who are called to the scene to assist in investigation or processing of the scene (e.g., scientific personnel from the crime laboratory or medical examiner's office, other forensic specialists, photographers, mass disaster specialists, experts in the identification of human remains, arson and explosives investigators, clandestine drug laboratory investigators, as well as other experts).

Trace evidence: Physical evidence that results from the transfer of small quantities of materials (e.g., hair, textile fibers, paint chips, glass fragments, gunshot residue particles).

Transient evidence: Evidence which by its very nature or the conditions at the scene will lose its evidentiary value if not preserved and protected (e.g., blood in the rain).

Unknown/questioned: See comparison samples.

Walk-through: An initial assessment conducted by carefully walking through the scene to evaluate the situation, recognize potential evidence, and determine resources required. Also, a final survey conducted to ensure the scene has been effectively and completely processed.

About the National Institute of Justice

NIJ is the research, development, and evaluation agency of the U.S. Department of Justice. The Institute provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety. NIJ's principal authorities are derived from the Omnibus Crime Control and Safe Streets Act of 1968, as amended (see 42 U.S.C. §§ 3721–3723).

The NIJ Director is appointed by the President and confirmed by the Senate. The Director establishes the Institute's objectives, guided by the priorities of the Office of Justice Programs, the U.S. Department of Justice, and the needs of the field. The Institute actively solicits the views of criminal justice and other professionals and researchers to inform its search for the knowledge and tools to guide policy and practice.

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NIJ has seven strategic goals grouped into three categories:

Creating relevant knowledge and tools

1. Partner with State and local practitioners and policymakers to identify social science research and technology needs.
2. Create scientific, relevant, and reliable knowledge—with a particular emphasis on terrorism, violent crime, drugs and crime, cost-effectiveness, and community-based efforts—to enhance the administration of justice and public safety.
3. Develop affordable and effective tools and technologies to enhance the administration of justice and public safety.

Dissemination

4. Disseminate relevant knowledge and information to practitioners and policymakers in an understandable, timely, and concise manner.
5. Act as an honest broker to identify the information, tools, and technologies that respond to the needs of stakeholders.

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6. Practice fairness and openness in the research and development process.
7. Ensure professionalism, excellence, accountability, cost-effectiveness, and integrity in the management and conduct of NIJ activities and programs.

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