Homicide Investigation
Beyond the Crime Scene
“Bullets and Blood Spatter”

Course Objectives (cont.):

Why Look At Patterns
Bloodstains may give the investigator information as to who was involved at a scene, what may have occurred at a scene, when an action took place, where the action occurred and how it occurred.

Bloodstains may provide supportive or non-supportive evidence of victim’s, suspect’s and witness’s statements. Information gained through crime scene analysis may allow the investigator to evaluate statements made by victims, suspects and witnesses as to what occurred during a particular incident. A statement from the subject may or may not fit with the overall bloodstain pattern analysis. Bloodstain pattern analysis when used in conjunction with other evidence from the scene, victim(s) and suspect(s) will assist in the overall crime scene reconstruction. Demonstrations will be given regarding the manner in which bloodstain evidence is used to corroborate or refute statements made by principles in the case.

Shooting Scene Reconstruction
There are many aspects to shooting scene reconstruction, however most of the mechanics involved in this type of reconstruction are very straightforward. Attendees will be made aware of the dynamics of a bullet being fired, and the flight path of that bullet after it has been discharged from the weapon. Scale diagrams greatly assist in demonstrating bullet trajectories, and will be appropriately applied. Instruction will be given on the identification and collection of evidence that is crucial to reconstructing shooting scenes.

Gunshot wounds may take on different appearances depending on many variables, such as: the distance to the victim from which the bullet was fired, whether the bullet struck an intermediate surface prior to striking the victim, the caliber of the weapon used, etc. Detail photo and illustrative examples will be given in order to properly explain the different types and appearances of gunshot wounds.

Officer Involved Shooting Investigations
There are very few incidents that cause greater impact on a police department than shooting incidents involving officers in the performance of duty. In addition to shooting reconstruction evidence, investigators, supervisors, and patrol officers should also be aware of evidence that may go toward precipitating events, or aggravating factors. Locations, distances, and time, all become vitally important and the significance of each will discussed at length. Specific situations, including shooting at moving vehicles will also be discussed.
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Course Objectives:

This course is designed to address the responsibilities of all personnel who will be investigating scenes of violence, including first responding patrol officers, case detectives, supervisors, coroners/death scene investigators, and laboratory analysts. Emphasis will be placed on using blood evidence and ballistic evidence in order to reconstruct scenes of violence including assault, homicide/death scenes, and officer involved shooting scenes.

This class will emphasize the importance of using evidence documented and collected at a crime scene to reconstruct events. The initial crime scene investigation primarily involves documenting the crime scene along with its associated evidence, and is a critical component to an accurate reconstruction. The goal of this course is to demonstrate the manner in which events are reconstructed, based upon the evidence and information obtained from both the crime scene and the case investigation.

Scale Diagrams and Reconstructions

In order for a reconstruction to be considered valid, it generally needs to be reproducible. Reconstruction of events rely heavily on measurements taken at the scene. In many scenes of violence it may not be enough to simply measure the length and width of the room. Measurements need to be taken in order to re-create the actual size and dimensions of the scene at a later time, and to provide accurate calculations that may need to be drawn from those measurements. Measurements need to be taken correctly, with the intention of using those measurements to produce accurate diagrams at a later time.

Instruction will be given in the proper collection of measurements and other data in order to accurately demonstrate reconstructive findings.

Emphasis will be placed on scale measurements taken from the crime scene in order to produce scale diagrams in both two-dimensional and three-dimensional formats. Reconstruction of events such as formations of bloodstains or bullet trajectories are dependent upon demonstrating those events within a scale diagram. This section will address the proper methods to use when measuring crime scenes in order to generate scale diagrams, in which vital evidence such as bloodstains and bullet trajectories can be placed, analyzed, and demonstrated.

Bloodstain Evidence and Event Reconstruction

Blood at crimes scenes: on victims, suspects, or witnesses (clothing or persons) can be considered significant physical evidence and should be treated as such when documenting, collecting and preserving. Before blood evidence can be properly analyzed, it needs to be properly documented. The field investigator should also be able to identify different types of bloodstains and understand how each stain lends information surrounding the blood letting event.

This section of the training will describe in detail, the different types of bloodstains frequently encountered at blood letting crime scenes. Through the use of photo and video demonstrations, the manner in which bloodstains are produced will be covered in great detail. Demonstrations and examples will be given in order to explain the manner in which these specific bloodstains are applied to the death scene in order to reconstruct events.

Seminar Agenda

Homicide Investigation Beyond the Crime Scene
“Bullets and Blood Spatter”
October 7, 8 & 9, 2015 • Lynchburg, Virginia

Wednesday, October 7, 2015
8:00 a.m.—8:30 a.m.
Registration

8:30 a.m.—10:00 a.m.
Coping with the CSI Effect
- Separating Fact from Fiction
- Building Strong Cases
- The Application of Physical Evidence to Scene Reconstruction
- Generating Scale Diagrams for Reconstruction of Events
- Use of Tables to Facilitate Homicide and Death Scene Investigations

10:00 a.m.—11:00 a.m.
Introduction to Bloodstain Pattern Analysis
- The Application of Bloodstain Pattern Analysis to Crime Scene Reconstruction
- Collecting Background Information for Bloodstain Pattern Analysis
- Information That Can Be Obtained from Bloodstain Patterns

11:00 a.m.—12:00 p.m.
The Application of Physical Evidence to Suspect Statements
- Obtaining the Accurate Information from Principles in Case Investigation
- The Application of Bloodstain Evidence to Suspect Statements

12:00 p.m.—1:00 p.m.
Lunch on your own

1:00 p.m.—2:30 p.m.
Identifying and Classifying Bloodstain Patterns:
- Passive Stains
- Trajectory Bloodstain Evidence to Facilitate DNA Testing

2:30 p.m.—5:00 p.m.
Identifying and Classifying Bloodstain Patterns:
- Spatter Stains
- Transfer Stains/Altered Stains

Thursday, October 8, 2015
8:00 a.m.—10:00 a.m.
Documenting Bloodstain Patterns
- Photography Measurements; Swab Samples
- Overview of Blood Enhancing Reagents

10:00 a.m.—12:00 p.m.
Documenting Bloodstain Patterns
- Presence of Blood - Absence of Blood
- How Much Blood Would You ‘Expect to Find’?

12:00 p.m.—1:00 p.m.
Lunch on your own

1:00 p.m.—2:30 p.m.
Introduction to Shooting Reconstruction
- Documenting Shooting Scenes
- Casing Ejection Patterns
- Trajectory Bloodstains
- Properly Securing Ballistics Evidence
- Mapping and Measuring Shooting Scenes

2:30 p.m.—5:00 p.m.
Shooting Scene Reconstruction
- Identifying and Calculating Bullets Impacted Angles
- Gunshot Residue
- Muzzle to Target Distance Testing

Friday, October 9, 2015
8:00 a.m.—9:30 a.m.
Investigating Officer Involved Shooting Scenes
- Addressing Perception Distortion
- Aggravating Factors
- Precipitating Factors

9:30 a.m.—10:30 a.m.
Shooting at Moving Vehicles
- Time-Distance Calculations

10:30 a.m.—12:00 p.m.
Murder as an Action
- Understanding Murder Victims, Defendants, Consequences
- Tips for Displaying Evidence in Court

12:00 p.m.
Certificate Presentation

Note: Casual Business Attire (No jeans, shorts, tee shirts, etc.)