



## Curriculum Outline

**Course Title:** *Shooting Reconstruction*

**Course Description:**

*This three day course will benefit crime scene investigators, detectives and anyone involved with law enforcement that investigates shooting incidents. This course will help the criminal investigator in identifying, documenting and collecting all the evidence at a shooting scene to assist them in reconstructing the shooting incident. The students will learn how to use the tools necessary to determine the projectile's trajectory and possible location of the shooter and/or victim at the time of the shooting. Students will also learn to examine the ballistic evidence to determine type of weapons used during the shooting incident. The students will incorporate the lessons learned during the classroom in hands-on scenarios that will enhance the learning process.*

**Number of instructional hours:** 24

**Number of lecture hours:** 10

**Number of hands-on training hours:** 14

**Submitted by:** *Sgt. Miguel Santiago and Det. Terry Brandon (Ret.)*

**Course Objectives Classroom Training:**

- **Focus of the Investigation:** *Learn procedures for preserving evidence, determining cause and manner of death, identify, locate and interview witnesses to the incident, identify and collect evidence, reconstruct the event to determine if statements are consistent, and maintain impartiality throughout the investigation.*
- **Shooting Scene:** Learn to describe the crime scene in detail, determine what happened, note your observations of the decedent, secure all expended casings, secure all projectiles, locate all bullet holes, identify all vehicles involved, identify all sources of area lighting, identify blood spatter/stains, and obtain all 911 calls and radio traffic recordings.
- **Shooting Investigation:** Learn to debrief the responding officer, processing and documenting the evidence, identify and document the types and number of vehicles involved, provide a description and diagram of the shooting scene, identify the location and movement of all officers, suspects, witnesses, and identify the paths of all bullets fired.
- **Officer Involved Shooting Protocol:** Learn to apply established procedures to document, collect and preserve evidence such as gunshot residue, bullets and

expended cartridges, bullet holes, ricochets, bullet impact marks, clothing, blood spatter and trace evidence.

- **Ballistics:** Learn about the behavior of a bullet within the confines of a gun barrel as it relates to the number of lands and grooves and the direction of twist. Learn of the bullet's behavior upon exiting the barrel of a weapon and the projectiles' effect upon impact with the target.
- **Angle of Impact:** Learn to use the tools to determine the approximate angle of impact. Learn to use the scientific calculator, trajectory rods, protractor, plum bob, string and lasers to determine angles of impact.
- **Documentation:** Learn to document a shooting scene by way of measurements, photography, lasers, trajectory rods and protractors. Learn to review all documents, such as witness statements, photographs, and crime scene sketches to finalize an official police report.

#### **Course Objectives Hands-On Training:**

- **Documentation:** *Learn to observe a shooting scene, accurately document the crime scene in detail and draw a detailed crime scene sketch.*
- **Collection and Preservation of Evidence:** *Learn to search a crime scene, identify, locate, document and collect any evidence in the crime scene, properly use the tools available to document the shooting scene.*
- **Photographing the Crime Scene:** *Obtain overall, medium range and close up photographs of the shooting scene, Utilize scales for close up photographs, Use markers to identify evidence in the crime scene, Document important evidence information which supports the photographs.*
- **Case Study:** *Review a real life homicide case to identify the investigative techniques learned during these courses that were utilized during the investigation.*

**Required Assessments:** *Participation in class and hands-on events is required to improve upon the learned skills. Documentation will be assessed for details and observations of the investigation. After action reviews will be conducted after each hands-on station to reinforce the skills learned. Students will compile all their notes and handouts to demonstrate the application of all skills learned during the course.*