

# RON SMITH AND ASSOCIATES, INC.

## FUNDAMENTALS OF CRIME SCENE EXAMINATION AND EVIDENCE COLLECTION



**Class Instructor:**  
**Scott Campbell, CSCSA**

**5 Day Course**

**40 Training Hours**

**\$600.00 Tuition**

**This course is approved  
for IAI certification and  
recertification purposes**



International Association  
for Identification

**RS&A recommends  
taking our classes in  
order of our Sequential  
Training Curriculum**

**CLICK HERE TO VIEW OUR  
SEQUENTIAL TRAINING  
CURRICULUM**



### COURSE DESCRIPTION

Expectations of the public and the courts have risen dramatically over the last several years in the area of physical evidence collection and forensic identification. Additionally, there is a need for "Homeland Security" protection through awareness, collection and identification of physical evidence at the local level. Working a crime scene is a "process" that involves a broad range of Skills. With these issues in mind, the purpose of this course is to train crime scene personnel in the skills needed to identify, photograph, process, and preserve the crime scene and items of evidence found in them. The course is intended to provide a foundation for the future development of such expertise through experience and continued training.

### COURSE OVERVIEW

#### Evidence Collection Kits

- \* Suggested items to include

#### What is Physical Evidence?

- \* Locard's Exchange Principle
- \* The Evidence Triangle

#### Documentation of Crime Scenes:

- \* Photography:
  - \* Photography Equipment
  - \* Composure – types of photos
  - \* Camera controls and settings
  - \* Specialized photographic techniques
  - \* Searching, sketching, measurements and diagramming crime scenes
  - \* Written narratives and field notes

#### Biological Evidence:

- \* Search and recovery
- \* DNA
- \* Body fluids
- \* Use of Luminol

#### Trace Evidence— Types of evidence, collection and packaging:

- \* Firearms and ammunition
- \* Clothing, fabrics, hairs and fibers
- \* Fracture and tear matches
- \* Building materials
- \* Glass
- \* Tool Marks
- \* Paints
- \* Metals
- \* Gunshot residue—GSR
- \* Arson debris

#### Latent Fingerprint Development:

- \* History behind the use of fingerprints and why they are used today
- \* Collection and use of "Elimination Prints" \* Skin structure and secretions and how they effect latent impressions
- \* Types of surfaces found at a crime scene and how to best process them (Porous & Non-porous)
- \* Dusting and lifting methods
- \* Specialized techniques
- \* Textured Surfaces
- \* Cyanoacrylate (superglue)
- \* Small particle reagent – wet surfaces
- \* Sticky side powder and gentian violet – adhesive tapes
- \* Use of chemicals for "Porous processing" – iodine, ninhydrin

#### Footwear and tire track impressions:

- \* Two and three dimensional evidence
- \* Class characteristics and individualization
- \* Photographic techniques
- \* Collection methods
- \* Casting
- \* Gel lifters
- \* Dusting and Lifting
- \* Electrostatic lifting equipment

#### Document (Handwriting) Evidence

Upon completion of this training, students should possess the fundamental skills necessary to process crime scenes and collect a variety of different types of physical evidence.

# RON SMITH AND ASSOCIATES, INC.

## FUNDAMENTALS OF CRIME SCENE EXAMINATION AND EVIDENCE COLLECTION

### TARGET AUDIENCE

This five-day crime scene course provides instruction in the identification, processing, preservation and recovery of physical evidence including: scene responsibilities, crime lab capabilities, scene equipment, scene and evidence photography, searching & measuring, biological & trace evidence, footwear & tire evidence, fingerprint processing and handwriting evidence.

Expectations of the public and the courts have risen dramatically over the last several years in the area of physical evidence collection and forensic identification. Working a crime scene is a "process" that involves a broad range of skills. With these issues in mind, the purpose of this course is to train crime scene personnel in the skills needed to identify, photograph, process, and preserve the crime scene and items of evidence found in them. The course is intended to provide a foundation for the future development of such expertise through experience and continued training.

Attendees will receive lecture and demonstrations along with participating in class discussions and performing practical exercises to demonstrate acquired skills.

### SHOULD BE ABLE TO PERFORM

Upon completion of the course, the attendees should be able to evaluate, process and collect various types of physical evidence from crime scenes. These objectives include:

- \* Describe evidence technician crime scene responsibilities
- \* Identify various types of physical evidence and crime lab capabilities
- \* Explain and demonstrate methods used to search and measure crime scenes
- \* Describe and explain proper scene and evidence photography
- \* Demonstrate various camera setting changes for proper exposure
- \* Identify types of trace evidence and describe proper collection methods
- \* Demonstrate processing and recovery methods for two and three dimensional footwear and tire evidence
- \* Demonstrate techniques for fingerprint evidence processing and recovery

### MUST BRING TO CLASS

Students should wear appropriate business casual clothing for practical exercises conducted both inside and outdoors. Clothing can be soiled or ruined during the practical exercises due to chemicals and/or working outside.

Students are asked to bring the following: Digital camera (digital SLR preferred) and instruction manual, lens, batteries for camera and flash, digital media, off camera flash and instruction manual, remote flash cord, tripod (if available), a flashlight, and basic latent processing kit.

These items are not required to attend class but students are strongly encouraged to bring them to enhance their learning experience.

### HOST A CLASS

If you would like to host this class the following information will help you understand the facilities needed for a successful class. We have always worked out adequate space for the class and do not damage the rooms.

Access to the training room by 7:00AM daily is necessary to be set up for an 8:00 a.m. start time. The ability to leave equipment and supplies locked in the training room overnight is necessary or a locked storage area and extra setup time will be needed. For all of these spaces a hard floor surface is preferable to carpet.

A classroom with a dry erase board and PowerPoint system with sound for videos from a laptop or a DVD player. Some audio is fairly quiet so good speakers will enhance the presentation. We will be using fingerprint powders so the room must be able to get a little dirty or an alternate room will be needed. (Cleaning supplies will help us keep the room in good condition.) The room will need to be darkened almost completely for photography and other exercises.

A room or area with a sink for chemical processing. Students will apply chemicals and rinse with water so an area that can accommodate 25 students so they can see and evaluate the results works well.

An outside area with dirt (snow in winter is fine) for footwear casting for 25 students. The dirt from the castings will need to be washed off after they setup so a hose or other water supply will be needed.

A room or space that can be darkened completely for one short demonstration. Carpet should be avoided for this space as the demonstration involves chemicals that can get messy.

### I.A.I. APPROVED TRAINING HOURS

This course provides 40 training hours and is approved for IAI Certification and re-certification.



# RON SMITH AND ASSOCIATES, INC.

## FUNDAMENTALS OF CRIME SCENE EXAMINATION AND EVIDENCE COLLECTION

### DAILY SCHEDULE

	Day 1	Day 2	Day 3	Day 4	Day 5
Hour 1	Welcome, Registration, Logistics & Intro to Course	Photography – Sensors, Lens Functions, Digital Media	Photography - Time Exposure, Painting w/Light Composure, Anatomy/Injury	Footwear Cast Evaluations, Searching & Sketching	Fingerprints continued – Elimination Prints, Processing using Powders and various recovery methods
Hour 2					
Hour 3	Equipment & Physical Evidence	Photography – Image Quality & Size, Exposure Compensation, Shutter Speed	Photography – Composure, Accidents, Injuries, Archiving Images	Biological Evidence	
Hour 4	Crime Scene Investigation/Responsibilities				Textured/Difficult Surfaces
Noon	Lunch	Lunch	Lunch	Lunch	Lunch
Hour 5	Crime Lab Capabilities	Photography – Aperture, ISO Settings, Light Meter Usage	Footwear & Tire Impressions Discovery, Collection, Lifting, Casting	Trace Evidence – Hairs & Fibers, Firearms & Ammunition, Glass, Paints, GSR, Building Materials, Tool Impressions, Arson	Fingerprints – Chemical Processing
Hour 6	Introduction to Crime Scene Photography				
Hour 7	Photography – Camera Controls, & Basic Mechanics	Photography – Histograms, Shooting Data, White Balance, Intro to Flash	Footwear Evidence - continued	Introduction to Fingerprints – History & Usage	Death Scenes, F.P. Evidence Falsification, Handwriting Evidence
Hour 8					

