FOOTWEAR AND TIRE TRACK EVIDENCE: EFFECTIVE CRIME SCENE RECOVERY

COURSE DESCRIPTION

Footwear and tire track evidence is underutilized and often overlooked; yet it should be present at every crime scene. Effective recovery of footwear and tire track evidence requires proper application of detection, photography, note taking, chemical development and collection techniques. There are increased expectations to be thorough, transparent, and to use standard techniques as a result of both the post NAS Report and TV CSI exposed juries. This course will enable participants to be both competent and confident collecting footwear and tire track evidence at a crime scene, evaluating the value to an investigation and presenting the evidence in court.

The emphasis of this course is on the practice of a wide variety of techniques to achieve proficiency recovering footwear and tire track evidence, and the application of techniques and skills to crime scene circumstances. To evaluate impressions at the crime scene, knowledge of manufacturing characteristics and characteristics that result from the wearing of shoes and tires will be discussed. Manufacturing and design information can provide important investigative intelligence, this along with the use and availability of databases and other resources will be discussed. The course will cover the standards that apply to this evidence, the written report contents and manner of testimony required to accurately and clearly convey this evidence.

This course is conducted primarily through hands on experience. Participants will practice photography including lighting techniques and the proper sequence of photographs needed to compose and document track evidence. Techniques and materials for lifting, casting and chemically enhancing impressions will be practiced, with emphasis on determination of which technique to use and on the notes and photographs needed to document both the scene context and the impression for comparison.

Both two- and three-dimensional track evidence, in a variety of substrates will be practiced and discussed in this course. Participants will experience each set of skills, and then practice application of techniques to crime scene scenarios, allowing for direct application to field work upon completion of the course.

Course Objectives: * An overview of footwear and tire evidence will be included to provide a basis of understanding of this type of evidence including manufacturing, databases and resources available and role of this evidence in investigations. * Students will practice proper photography of footwear and tire track evidence for the purposes of examination, comparison and documentation. * Students will utilize note taking, photography and diagramming techniques to document location, condition and processing. * Students will learn detection techniques and the importance of protecting impression evidence from accidental and/or environmental destruction at the scene. * Students will assess impression evidence and determine actions for recovery based on an analysis of the substances and surfaces involved. * Students will practice with light source, electrostatic lifting and photography equipment. * Students will practice with casting, lifting and test impression materials. * Students will practice with blood enhancement reagents such as Amido Black, Leuco Crystal Violet and Blue Star®. The basic process of comparison of footwear and tire track evidence will be discussed to clarify the importance of recovery on effective examination and conclusions. * Manufacturing and design characteristics that may provide investigative information will be discussed. * Standards that apply to the collection and photography of footwear and tire track evidence will be provided. * Report writing contents and structure will be discussed. * Students will participate in both crime scene and mock trial exercises to practice the application of this course material to the field and court. * Resources for continued learning and evaluation of methods will be suggested.

TARGET AUDIENCE

This course is targeted for any forensic or law enforcement professional with the goal of proficiency and competence in the recovery and investigative value of footwear and tire track evidence. This course is appropriate for novice and experienced crime scene personnel, investigators, detectives, and for footwear and tire track examiners. Basic competency with camera operation is recommended. Since the proper recovery of evidence is important in the field, in the laboratory and to an investigation, attendees involved with any phase of footwear and/or tire track evidence will benefit from this course.

SHOULD BE ABLE TO PERFORM

Upon completion of this course students will be able to: * Interpret the potential value of impression evidence * Explain the characteristics from manufacturing and from wear for both shoes and tires * Determine the samples that are needed of known shoes and tires for comparison * Preserve footwear and tire impressions from destruction at the crime scene * Photograph tracks for context * Photograph impressions for comparison * Cast footwear and tire track impressions in any encountered condition * Lift and enhance blood and non-blood impressions * Photograph a luminescent impression (from enhancement such as luminal) * Collect investigative information from shoes and tires * Ensure that procedures meet current standards * Document evidence in notes * Convey evidence and procedures in reports and testimony

PRE-REQUISITES

Basic knowledge of photography and camera equipment operation is recommended.
DAILY SCHEDULE

Classes will begin each day promptly at 8:00 a.m. and conclude at about 5:00 p.m. unless otherwise stated in "Special Notes for Students" on the Class Flyer.

NOTE: Some classes may start at a different time - check the "Special Notes for Students" link for your particular class for any changes to the class starting time.

<table>
<thead>
<tr>
<th>Day 1</th>
<th>Day 2</th>
<th>Day 3</th>
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<tbody>
<tr>
<td>Hour 1</td>
<td>Registration / Course Overview / Introductions</td>
<td>Casting / Techniques: Theory and practice for a variety of conditions: Mud, Sand, Snow Incline / Casting materials overview: dental stones and sulfurs</td>
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<tr>
<td>Hour 2</td>
<td>Footwear evidence overview: footware as evidence and the types of footwear impressions / Collection of footwear known</td>
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<td>Hour 3</td>
<td>Crime Scene Documentation and Photography</td>
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<td>Lunch</td>
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<td>Hour 4</td>
<td>Practice photographing footwear impressions for documentation and comparison</td>
<td>Casting practice continued</td>
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<td>Hour 5</td>
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<td>Coatings and sprays for 3 dimensional impressions</td>
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<td>Hour 6</td>
<td>Lifting and enhancing non blood impressions: practice lifting and enhancing impressions</td>
<td>Tire Impression Evidence: photography, casting and known standards</td>
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<td>Hour 7</td>
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<td>Characteristics of tires and</td>
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<td>Hour 8</td>
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MUST BRING TO CLASS

Students should bring a SLR camera with remote flash or cord for the extension of flash 6 to 10 feet, flashlight, tape measure and tripod. A variety of scales are recommended including L shaped and 6” forensic scales. Attire should include necessary dress for outdoor activity, including local weather considerations as well as the use of casting and blood enhancement materials.

RECOMMENDED READING LIST


MUST BRING TO CLASS

If you would like to host this course a classroom with adequate table and chair seating. PowerPoint projector, screen and white board or flip chart are needed. The hands on portions need laboratory space with fume hoods, sinks and laboratory tables as well as outdoor space for casting with ability to use or spread dirt, sand and other casting substrates. Electrical and water sources are needed outdoors. WE HAVE ALWAYS MADE A VENUE WORK FOR THIS CLASS.

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