

**Raleigh/Wake City-County  
Bureau of Identification  
Crime Laboratory Division**

**LATENT PRINT UNIT FOOTWEAR EXAMINER TRAINING  
MANUAL**



Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Table of Contents

|  |           |
|--|-----------|
| <b>INTRODUCTION:</b> .....                                       | <b>4</b>  |
| <b>PHASE 1</b> .....   | <b>6</b>  |
| <b>SECTION 1</b> .....   | <b>6</b>  |
| Module 1.1: Laboratory Orientation and Training Assessment ..... | 6         |
| <b>SECTION 2</b> .....   | <b>7</b>  |
| Module 2.1: History of Footwear .....                            | 7         |
| Module 2.2: Terminology of Footwear .....                        | 8         |
| Module 2.3: The Manufacturing Process.....                       | 9         |
| <b>SECTION 3</b> .....   | <b>10</b> |
| Module 3.1: Photography of Footwear Evidence .....               | 10        |
| Module 3.2: Recovery and Preservation of Footwear Evidence ..... | 12        |
| Module 3.3: Enhancement of Footwear Evidence .....               | 13        |
| <b>SECTION 4</b> .....   | <b>14</b> |
| Module 4.1: Creating Known Footwear Standards.....               | 14        |
| Module 4.2: Footwear Examinations .....                          | 16        |
| Module 4.3: Results for Footwear Examinations.....               | 18        |
| <b>SECTION 5</b> .....   | <b>19</b> |

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

|   |               |
|---|---------------|
| Module 5.1: Forms, Records, and Reports .....   | 19            |
| <b>SECTION 6 .....</b>  | <b>21</b>     |
| Module 6.1: The Shoeprint Image Capture and Retrieval (SICAR) Database System .....   | 21            |
| <b>SECTION 7 .....</b>  | <b>22</b>     |
| Module 7.1: Preparation for Court and Legal Issues.....   | 22            |
| Module 7.2: Ethics in Forensic Science .....  | 23            |
| Module 7.3: Final Written Examination .....   | 24            |
| Module 7.4: Moot Court .....  | 25            |
| <b>PHASE 2.....</b>   | <b>26</b>     |
| <b>SECTION 8 .....</b>  | <b>26</b>     |
| Module 8.1: Supervised Casework.....  | 26            |
| Module 8.2: Competency Test <del>Footwear Comparison Examination Practical and Demonstration of Competency</del><br>(Final Exam)..... | 28            |
| <b>SECTION 9 .....</b>  | <b>29</b>     |
| <del>Module 9.1: Internal or External Proficiency Test .....</del>  | <del>29</del> |
| <del>Module 9.2: Moot Court .....</del>   | <del>30</del> |
| <del>Module 9.3: CCBI Certification Casework Authorization .....</del>  | <del>31</del> |
| <b>PHASE 3.....</b>   | <b>32</b>     |
| Section 9.....  | 32            |
| Module 9.1: 100 % Administrative and 100 % Technical Review .....   | 32            |

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Introduction:

Refer to Laboratory Administrative Procedure 22: Training Programs.

All training activity and results will be recorded by the Principal Instructor and the Trainee in the FT Training Checklist as well as attest that the required readings have been accomplished. The Principal Instructor will maintain a training file containing all training materials.

Modified training programs must be approved in writing by the Quality Manager in prior to the commencement of training.

~~The above curriculum and the following modules are an outline of the minimum requirements of the Footwear Examiner Training Program. The Trainer may require additional exercises, provide other lectures, and afford the student other training opportunities outside the above listed outline. In such instances, the Trainer will note any additions to this program on the training record of the student. All instructors of this training program must possess the knowledge, skills and abilities for the course being instructed, and must be qualified by the courts as experts in footwear examination.~~

~~The methods of assessment/s can be in oral, written or demonstrative form. All results will be recorded by the Trainer and the Trainee in the FW Training Checklist as well as attest that the required readings have been accomplished. The Trainer will maintain a notebook (portfolio) of all training materials. Competency must be exhibited in each of the assessments by performing, understanding, thinking and communicating each delineated and quantitated assignment.~~

~~The successful completion of each module in every section is necessary before proceeding to the next section and phase of the training program. The training program can be broken down into various phases, sections, and modules. Phase 1 of the training program consists of Sections 1-7, and Phase 2 of the training program consists of Sections 8 & 9. Within each section a series of training modules exist.~~

~~With regard to assessing the Trainee's current skill level, a comprehensive review of the Trainee's experience and previous training, if any, must occur. If the Trainee can successfully demonstrate competency based off previous experience, the Trainer may apply an abbreviated training session and for each applicable section and module. The Trainee, however, will have to~~

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

~~demonstrate competency at the end of each training section in order to become authorized to complete casework.~~

~~The training period for Phase 1 is estimated at approximately 6-9 months, which is dependent upon various factors that include, but are not limited to: the Trainee's experience, skill level, comprehension, and overall response to the training program.~~

~~The training period for Phase 2 is estimated at approximately 6-9 months; however, the Trainee must complete a minimum of 6 months of supervised case work (with a minimum of 2 cases per month) during Phase 2.~~

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Phase 1

### Section 1

#### Module 1.1: Laboratory Orientation and Training Assessment

##### Training ~~Learning~~ Objectives:

An understanding of the services offered/performed by the various sections of the CCBI and the interactive sequencing protocol for cross-over examinations with footwear examinations.

An understanding of the structure of the CCBI footwear examiner training process and the expected goals of the program.

~~An assessment of the level of training that will be necessary for reaching competency as independent case working Footwear Examiner.~~

##### Method of Testing: Training Objectives:

~~Review of the Footwear Training Program for understanding of the requirements for successful completion. Assess the Trainee's current skill level and determine the most appropriate course of training to attain competency.~~

##### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion with the Principal Instructor reviewing topics contained within the training program. The Trainee, Trainer, and Forensic Supervisor will review the Trainee's previous experience and training in footwear examinations, and develop the most appropriate course of training.~~

##### Required Reading:

- 1) CCBI Latent Print Unit Footwear Training Manual
- 2) Saferstein, R. (1998). Criminalistics: An Introduction to Forensic Science, 8th (Ed.), Chapters 1

Estimated training time: Five (5) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Section 2

### Module 2.1: History of Footwear

#### Training ~~Learning~~ Objectives:

A practical understanding of the history of footwear and its means as an identification method.

#### Method of Testing: ~~Training~~ Objectives:

Ability to demonstrate a competent familiarity with the historical issues and topics surrounding footwear impression evidence.

#### Training Methods: ~~Assignments~~:

- 1) ~~Oral discussion by the Principal Instructor~~ Attend a lecture about the history of footwear impressions used as evidence.
- 2) Create a detailed historical timeline showing the dates and topics related to both friction ridge skin examination and footwear impression evidence, up until the present date.
- 3) Research ~~and write~~ /write/communicate a paper on the historical evolution of footwear.

#### Required Reading:

- 1) Journal of Forensic Identification, "Track Identification: An Historical Overview", Hann, 39:6 (1989)
- 2) Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Hildebrand, 2007, Chapters 1 &2

Estimated training time: Five (5) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Module 2.2: Terminology of Footwear

### Training ~~Learning~~ Objectives:

To develop an understanding of the various terms and expressions utilized for describing footwear items and in footwear examinations.

### Method of Testing: ~~Training Objectives:~~

Practical application of the terminology and appropriate nomenclature related to footwear items and examinations.

### Training Methods: ~~Assignments:~~

- 1) **Oral discussion by the Principal Instructor** ~~Attend a lecture/demonstration~~ utilizing the various terms and expressions that are utilized for the examination of footwear items.
- 2) Gather photographs of a minimum of fifty (50) different types and styles of footwear items and correctly assign labels to each section of each footwear item.

### Required Reading:

- 1) SWGTREAD, Standard for Terminology Used for Forensic Footwear and Tire Impression Evidence
- 2) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Pages 201-206.
- 3) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Pages 475-482.

**Estimated training time: Five (5) days**



Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Module 2.3: The Manufacturing Process

### Training ~~Learning~~ Objectives:

To understand the various manufacturing processes of footwear items, and how these processes influence aspects of forensic examinations.

### Method of Testing: ~~Training~~ Objectives:

Familiarity with the different types of outsole construction methods.

Demonstration of understanding concerning the manners in which the manufacturing techniques influence the decision-making process in footwear examinations.

### Training Methods: ~~Assignments~~:

- 1) ~~Oral discussion by the Principal Instructor~~ ~~Attend a lecture describing~~ the various manufacturing processes utilized in the creation of footwear items.
- 2) Watch the manufacturing videos on SWGTREAD,  
<http://swgtread.org/videos/manufacturing>.
- 3) Research ~~and write~~ ~~/write/communicate~~ a paper on the similarities and differences of the various manufacturing methods for footwear items.

### Required Reading:

- 1) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 3
- 2) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapter 7.

Estimated training time: Five (5) days

## Section 3

### Module 3.1: Photography of Footwear Evidence

#### Training ~~Learning~~ Objectives:

The understanding of the critical nature that photography plays with regard to footwear examinations.

#### Method of Testing: ~~Training~~ Objectives:

Practical demonstration of the correct procedures for the photographic documentation of footwear evidence.

#### Training Methods: ~~Assignments~~:

- 1) **Oral discussion by the Principal Instructor** ~~Attend a lecture/demonstration~~ on the use of digital equipment, necessary equipment, and lighting techniques for the photography of footwear impressions.
- 2) Respond to a location that contains footwear impressions on various surfaces and in various lighting conditions. Take digital photographic images of a minimum of twenty five (25) different footwear impressions.
- 3) Utilizing the digital photographs collected from Assignment 2, attempt to determine the type of shoe (athletic, dress, etc.), brand/make, physical size, and if the impression was from a left or right shoe.
- 4) Utilizing the digital photographs collected from Assignment 2, attempt to label the parts/areas of the shoes utilizing the correct nomenclature.
- 5) Utilizing the digital photographs collected from Assignment 2, determine if, due to the photography, any of the information requested in Assignments 2 and 3 could not be ascertained.

#### Required Reading:

- 1) SWGTREAD, Guide for the Forensic Documentation and Photography of Footwear and Tire Impressions at the Crime Scene.
- 2) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 7.

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

- 3) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapter 2.

Estimated training time: Ten (10) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Module 3.2: Recovery and Preservation of Footwear Evidence

### Training ~~Learning~~ Objectives:

To understand methods and procedures by which footwear impression evidence is developed, collected, and preserved for examination.

### Method of Testing: ~~Training Objectives:~~

Ability to demonstrate correct procedures for the collection and preservation of footwear evidence.

### Training Methods: ~~Assignments:~~

- 1) **Oral discussion by the Principal Instructor** ~~Attend a lecture/demonstration~~ on the collection of footwear evidence utilizing fingerprint powders on various types of backing materials, the Electrostatic Dustprint Lifter, and casting (dental stone and Mikrosil).
- 2) Watch the instructional video on SWGTREAD, <http://swgtread.org/videos/instructional>.
- 3) Collect twenty (20) footwear impressions using fingerprint powders and backing materials.
- 4) Collect five (5) footwear impressions utilizing the ESDL.
- 5) Collect five (5) footwear impressions by casting.
- 6) Research **and write** ~~/write/communicate~~ a paper on the proper procedure for casting footwear impressions in snow.

### Required Reading:

- 1) SWGTREAD, Guide for Casting Footwear and Tire Impression Evidence.
- 2) SWGTREAD, Guide for Lifting Footwear and Tire Impression Evidence.
- 3) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapters 9 and 10.
- 4) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapters 3 and 4.

**Estimated training time: Ten (10) days**

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

### Module 3.3: Enhancement of Footwear Evidence

#### Training ~~Learning~~ Objectives:

An understanding of methods utilized to enhance footwear evidence for examination.

#### Method of Testing: ~~Training Objectives:~~

Practical demonstration of the use of specialized lighting, photographic methods, chemical enhancements, sequencing of enhancement techniques, and digital imaging.

#### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion by the Principal Instructor~~ Attend a lecture/demonstration on the use of alternate light sources and photographic methods as they apply to footwear evidence.
- 2) Attend a lecture/demonstration on the application of chemicals and sequential processing techniques.
- 3) ~~Oral discussion by the Principal Instructor~~ Attend a lecture/demonstration on the use of digital imaging software for the enhancement of footwear evidence.
- 4) Research ~~and write~~ /write/communicate a paper on legal and/or court challenges to the enhancement of footwear evidence items.
- 5) Create a PowerPoint presentation showing a minimum of three (3) types of enhancements for three (3) footwear impressions. Utilize a step-by-step approach so each layer of the enhancement results can be easily visualized.

#### Required Reading:

- 1) SWGTREAD, Guide for the Chemical Enhancement of Bloody Footwear and Tire Impression Evidence.
- 2) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 8.
- 3) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapter 5.

Estimated training time: Ten (10) days

## Section 4

### Module 4.1: Creating Known Footwear Standards

#### Training ~~Learning~~ Objectives:

An understanding of the equipment utilized for the creation of known footwear standards.

An understanding of the various methods and techniques for the creation of known footwear standards.

An understanding of the importance of creating known standards that replicate the original footwear items as closely as possible.

#### Method of Testing: ~~Training Objectives:~~

To demonstrate a familiarity with equipment needed for the creation of footwear standards.

Operational demonstration of the creation of known standards using various techniques.

Practically demonstrate awareness of technical issues (air bubbles/double taps/tape wrinkles, recording arch bends, etc.) with footwear standards that may have an effect on the comparative examination against a questioned impression.

#### Training Methods: ~~Assignments:~~

- 1) **Oral discussion by the Principal Instructor** ~~Attend a lecture/demonstration~~ on the creation of known standards utilizing fingerprint powders with backing cards and tape or contact paper, invisible chemical residues, casting with BioFoam and Mikrosil, and inks/ink pads.
- 2) Collect a minimum of ten (10) different pairs of footwear standards utilizing fingerprint powder methods. Create the acetate overlays that would be utilized in the comparative process. Document the footwear information for each standard accordingly.
- 3) Collect a minimum of ten (10) different pairs of footwear standards utilizing ink and/or invisible chemical residue methods. Document the footwear information for each standard accordingly.

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

- 4) Collect a minimum of three (3) footwear standards utilizing the Biofoam and dental stone, and three (3) footwear standards (or section of standards) utilizing Mikrosil. Document the footwear information for each standard accordingly.
- 5) Research **and write** ~~/write/communicate~~ a paper on developing new techniques, methods, and/or ideas for the creation of known footwear standards for footwear examinations.
- 6) Create a PowerPoint presentation demonstrating examples of poorly created known footwear standards. Provide a detailed explanation on how each of the standards in the presentation may have an effect the comparative examination.

Required Reading:

- 1) SWGTREAD, Guide for the Preparation of Test Impressions from Footwear and Tires.
- 2) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Pages 160-164.
- 3) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Pages 285-306.

**Estimated training time: Ten (10) days**

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Module 4.2: Footwear Examinations

### Training ~~Learning~~ Objectives:

An understanding of the knowledge concerning the identification of footwear evidence, the exclusion of footwear evidence, as well as the associations for questioned and known footwear items by class characteristics.

An understanding of the relative importance of class characteristics and individual characteristics in the comparison process.

### Method of Testing: ~~Training~~ Objectives:

Practical exhibition of knowledge and ability to evaluate footwear impression evidence to determine sufficiency for evidentiary value.

Practical exhibition of knowledge and ability to footwear comparisons and render proper decisions.

### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion by the Principal Instructor~~ Attend lecture/demonstration on footwear examinations, including historical background, fundamental principles, various methods of comparison, and identification policies in and outside the United States.
- 2) ~~Oral discussion by the Principal Instructor~~ Attend lecture/demonstration on recognizing the various components of the comparison process, with emphasis placed on the accepted methodology of identification using the ACE-V formula (Analysis, Comparison, Evaluation, and Verification).
- 3) ~~Oral discussion by the Principal Instructor~~ Attend a lecture/demonstration on the various factors that questioned footwear impressions and subsequent development appearance. These factors include tonal reversal, position reversal, slippage, overlays, pressure distortion, matrix composition, development mediums, and substrate distortion.
- 4) ~~Attend a lecture~~ on proper note taking and documentation to be recorded during case examination.
- 5) The Trainee will conduct an analysis of fifty (50) mock questioned footwear impressions, and will create notes detailing observations within each impression.
- 6) Prepare a PowerPoint presentation highlighting at least five different examples of each of the following in questioned footwear impressions:



Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

- a) class characteristics
- b) individual characteristics
- c) levels of wear patterns

Required Reading:

- 1) SWGTREAD, Guide for the Examination of Footwear and Tire Impression Evidence.
- 2) SWGTREAD, Guide for Casework Documentation.
- 3) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 11.
- 4) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapters 9-11.

Estimated training time: Fifteen (15) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

### Module 4.3: Results for Footwear Examinations

**Training Learning Objectives:**

An understanding of the different types of examination results for footwear evidence comparisons.

**Method of Testing: ~~Training Objectives:~~**

A practical demonstration of the correct application of results in footwear examinations.

**Training Methods: ~~Assignments:~~**

- 1) The Trainee will conduct comparisons of footwear impressions in fifteen (15) mock cases, to be assigned by the Trainer. The Trainee will be required to create the appropriate notes for each case. The cases must have a variety of questioned impressions in different formats (to include photos, scans, lift cards, etc.).
- 2) Research **and write** ~~/write/communicate~~ a paper on the phases of the ACE-V methodology as it relates to footwear examinations.

**Required Reading:**

- 1) SWGTREAD, Standard Terminology for Expressing Conclusions of Forensic Footwear and Tire Impression Examination.
- 2) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 11.
- 3) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapters 9-11.

**Estimated training time: Sixty (60) days**

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Section 5

### Module 5.1: Forms, Records, and Reports

#### **Training Learning Objectives:**

An understanding of physical evidence and its: origin; collection; containers; handling; integrity; labeling; packaging; preservation; proof of custody; safety; sealing; and routing/storage.

An understanding of CCBI evidence receiving and handling practices.

An understanding of the report writing process as it applies to footwear examinations.

An understanding of inputting information into RMS database system, and various evidence tracking mechanisms.

#### **Method of Testing: Training Objectives:**

An understanding of the receiving and handling of evidence items, to include: receipt; inventory; labeling; packaging; safety practices; and storage.

An understanding and demonstration of appropriate evidence data entry to include: item description(s); item # generation, lab services requested.

Practical demonstration of knowledge of required CCBI documentation (electronic/paper) requirements necessary to reflect case records (addenda, corrections, phone logs, etc.).

Practical demonstration of report writing for footwear examinations.

#### **Training Methods: Assignments:**

- 1) **Oral discussion by the Principal Instructor** Attend a lecture relating to an overview of footwear evidence inclusive of: case type; packaging; case protocol depending on case type and case history; general receiving procedure; general evidence receiving, labeling, storing and packaging after receipt; receipt of additional evidence in an existing case; evidence release; and generation of any additional unit case paperwork.
- 2) Utilizing the previously reviewed fifteen (15) mock cases from Module 4.3, create full footwear reports and case files.
- 3) Create a flow chart showing the various flows of footwear evidence received for comparison purposes.

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

Required Reading:

- 1) Latent Print Unit, Technical Procedures, Related Chapters

Estimated training time: Fifteen (15) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Section 6

### Module 6.1: The Shoeprint Image Capture and Retrieval (SICAR) Database System

#### Training ~~Learning~~ Objectives:

An understanding of the operation relating to the use of the Shoeprint Image Capture and Retrieval (SICAR) database system.

#### Method of Testing: ~~Training Objectives:~~

Operational exhibition of the SICAR database systems as related to questioned footwear impression inquiries/searches.

#### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion by the Principal Instructor~~ Attend a lecture/demonstration on the use of the SICAR database system.
- 2) Encode thirty (30) questioned footwear impressions in the SICAR database system. Conduct on-screen comparisons of all result candidates of these inquiries.

#### Required Reading(s):

- 1) Latent Print Unit, Technical Procedures, Related Chapters
- 2) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Pages 284-285.

Estimated training time: Ten (10) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Section 7

### Module 7.1: Preparation for Court and Legal Issues

#### Training ~~Learning~~ Objectives:

An understanding of the legal rulings governing footwear expert testimony.

An understanding of court exhibit preparations to include enlargements, characteristic marking, and chart or PowerPoint assembly.

#### Method of Testing: ~~Training Objectives:~~

Practical exhibition of preparing exhibits for courtroom presentation.

Practical exhibition of knowledge related to the legal requirements and considerations afforded to the expert witness in footwear examinations.

#### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion by the Principal Instructor~~ Attend lecture/demonstration on creating footwear exhibits for courtroom presentation.
- 2) Prepare a court exhibit of the results of a footwear comparison, either a chart or a PowerPoint presentation.
- 3) Create a set of at least twelve (12) qualifying questions and answers for expert footwear testimony.
- 4) Oral presentation: participate in a moot court exercise as an expert witness, with an audience of Latent Print staff and Supervisors.

#### Required Reading:

- 1) Hildebrand, D. (2007). Footwear, The Missed Evidence, 2<sup>nd</sup> Ed, Chapter 12.
- 2) Bodziak, W. (2000). Footwear Impression Evidence: Detection, Recovery, and Examination, 2<sup>nd</sup> Ed., Chapter 12.

Estimated training time: Five (5) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Module 7.2: Ethics in Forensic Science

### Training ~~Learning~~ Objectives:

An understanding of the various ethical issues affecting forensic science.

### Method of Testing: ~~Training Objectives:~~

Practical exhibition of knowledge related to ethical issues and considerations in the various aspects of forensics, including issues of personal conduct, the work environment, and the court room.

Practical understanding of the relationship between forensic scientists and law enforcement.

Practical understanding of the pressures that can lead to ethical dilemmas.

Practical understanding of the ethical standards, or lack of standards, that are in place for forensic scientists.

### Training Methods: ~~Assignments:~~

- 1) ~~Oral discussion by the Principal Instructor~~ Attend a lecture on ethics topics as related to issues in forensic science.
- 2) Research ~~and write~~ /write/communicate a paper offering an opinion regarding on whether:
  - a) Forensic science laboratories should be housed under the umbrella of law enforcement.
  - b) Should be independent entities.
- 3) ~~Complete an ethics training course approved by the Forensic Quality Manager.~~

### Required Reading:

- 1) Read the ASCLD/LAB guiding principles of professional responsibility for crime laboratories and forensic scientists.

Estimated training time: Five (5) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

### **Module 7.3: Final Written Examination**

#### **Training Objectives:**

A comprehensive understanding of training topics as outlined in this training manual.

#### **Method of Testing:**

Successful completion (minimum 85% score) of a comprehensive written examination covering the training topics contained in this training manual. The written examination shall be completed by the Trainee independently and without any reference material.

#### **Training Methods:**

- 1) Independent review of training material by Trainee.
- 2) Trainee may initiate discussion of any questions with the Principal Instructor prior to beginning the final written examination.

**Required Reading:** None

**Estimated Training Time:** 2 (two) days



Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## **Module 7.4: Moot Court**

### **Training Objectives:**

Successfully complete testimony based on a mock case in a mock court setting.

Receive authorization from the Director to participate in supervised casework.

### **Method of Testing:**

Employee Testimony Evaluation forms will be used to evaluate the testimony. The forms must be completed by:

Principal Instructor  
Unit Technical Leader

Forensic Quality Manager and/or Crime Laboratory Deputy Director

### **Training Methods:**

- 1) Discussion with the Principal Instructor on courtroom testimony.
- 2) Observe the courtroom testimony of the Principal Instructor or another Latent Print Unit employee.
- 3) Testify on a mock case in a mock court setting evaluated by the Principal Instructor, Unit Technical Leader, Forensic Quality Manager and/or Crime Laboratory Deputy Director.

Required reading: None

Estimated Training Time: 4 (four) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## Phase 2

### Section 8

#### Module 8.1: Supervised Casework

##### Training ~~Learning~~ Objectives:

An understanding of footwear reporting procedures as applied to official reports, required documentation of case files, and evidence handling and chain-of-custody procedures.

An ability to conduct independent footwear examinations **in accordance with all CCBI and Latent Print Unit Policies and Procedures.** ~~at a level at which supervised casework is no longer necessary.~~

**Receive a Certificate of Competency from the Director in Footwear Examinations..**

##### Method of Testing: ~~Training~~ Objectives:

Practical exhibition of the use of all systems utilized in the Latent Print Unit necessary for the completion of footwear case assignments **in accordance with all CCBI and Latent Print Unit Policies and Procedures.**

Practical exhibition of written communications required for case files and official reports.

~~Operational performance in footwear case examinations to a level at which the Trainer deems supervised casework completed.~~

##### Training Methods: ~~Assignments:~~

- 1) **Oral discussion by the Principal Instructor** ~~Attend lecture/demonstration~~ on structure and required materials, notes, and documents to be contained in the footwear case files and written reports.
- 2) **Under the direct supervision of the Principal Instructor, perform Latent Print Unit Footwear Examination assigned casework activities for a minimum of ten (10) cases.** ~~The Trainee will conduct supervised case work for a period of no less than six (6) months, with a minimum of two (2) cases per month. The student will be evaluated at the conclusion of this assignment by the Trainer to determine if supervised casework is no~~

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

~~longer necessary. All phases of supervised case work will be done under the direct supervision of the Trainer.~~

Required Reading:

None

Estimated training time: Three (3) months

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

**Module 8.2: ~~Competency Test~~ Footwear Comparison Examination Practical and  
Demonstration of Competency (Final Exam)**

~~Training Learning~~ Objectives:

Demonstration of ability to accurately perform assigned casework activities of a Latent Print Unit Footwear Examiner.

~~A comprehensive understanding of training topics as outlined in this training manual.~~

~~Method of Testing: Training Objectives:~~

Successful completion of a competency test in footwear examination and SICAR database searching. The competency test must be completed by the Trainee independently. Any questions shall be directed to the Principal Instructor.

Successful completion of a written test report to demonstrate ability to properly convey results and/or conclusions and the significance of those results/conclusions.

Successful completion of an oral examination to assess the individual's knowledge of the discipline. The oral examination will be conducted by, at a minimum, the Principal Instructor, the Unit Technical Leader and the Forensic Quality Manager and/or the Deputy Director.

~~Successful completion of all training materials and demonstration of competency as a Footwear Examiner.~~

~~Training Methods: Assignments:~~

- 1) Independent review of training material by Trainee. ~~Final Examination~~
- 2) Trainee may initiate discussion of any questions with the Principal Instructor prior to beginning the competency test.

Required Reading: None

Estimated Training Time: Three (3) days

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## **Section 9**

### **Module 9.1: Internal or External Proficiency Test**

#### **Training Learning Objectives:**

~~An understanding of external proficiency testing.~~

#### **Method of Testing: Training Objectives:**

~~Successful completion of an external proficiency test in footwear examination.~~

#### **Training Methods: Assignments:**

- ~~1) Successfully complete external proficiency test.~~

#### **Required Reading:**

None

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## **Module 9.2: Moot Court**

### **Training Learning Objectives:**

~~An understanding of appropriate testimony techniques for expert witness testimony.~~

~~Successfully complete testimony based on the competency test in a mock court setting.~~

~~Receive authorization from the Director to participate in supervised casework.~~

### **Method of Testing: Training Objectives:**

~~To demonstrate competency as an expert witness in footwear examination.~~

~~Employee Testimony Evaluation forms will be used to evaluate the testimony. The forms must be completed by:~~

~~\_\_\_\_\_ Principal Instructor~~

~~\_\_\_\_\_ Unit Technical Leader~~

~~\_\_\_\_\_ Forensic Quality Manager and/or Crime Laboratory Deputy Director~~

### **Training Methods: Assignments:**

- ~~1) Discussion with the Principal Instructor on courtroom testimony. Respond to moot court in an official court room setting, with an audience, and other participants acting as a judge, prosecutor, and defense attorney. Become qualified as an expert witness in footwear examination, and provide the appropriate testimony.~~
- ~~2) Observe the courtroom testimony of the Principal Instructor or another Latent Print Unit employee.~~
- ~~3) Compile a list of questions likely to be asked of a Latent Print Unit Footwear Examiner in court. Prepare answers for the questions.~~

~~Required reading: None~~

~~Estimated training time: Five (5) days~~

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

**Module 9.3: CCBI Certification Casework Authorization**

~~Training Learning Objectives:~~

None

~~Method of Testing: Training Objectives:~~

None

~~Training Methods: Assignments:~~

- 1) ~~Achieve CCBI Certification for Casework Authorization~~

~~Required Reading:~~

None

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## **Phase 3**

### **Section 9**

#### **Module 9.1: 100 % Administrative and 100 % Technical Review**

##### **Training Objectives:**

Be able to conduct independent footwear examinations in accordance with all CCBI and Latent Print Unit Policies and Procedures.

##### **Method of Testing:**

Practical exhibition of the use of all applicable footwear examination systems in the Latent Print Unit in accordance with all CCBI and Latent Print Unit Policies and Procedures.

Practical exhibition of written communications required for case files and official notifications in accordance with all CCBI and Latent Print Unit Policies and Procedures.

Completion of the assigned ten (10) cases without any significant discrepancies that could affect the reliability of the Footwear Examiner's work.

Recommendation by the Principal Instructor for release from Phase III training.

##### **Training Methods:**

- 1) Perform Latent Print Unit Footwear Examiner assigned casework activities for a minimum of ten cases.

Required Reading: None

Estimated training time: Three (3) months



Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

## FW Training Checklist

This training checklist is to assure that the Trainer is training and the Trainee is becoming competent after assessments of each module. The appearance of the initials and date of the Trainer along with those of the Trainee indicates that both Trainee and Trainer agree that competency in the curricula of the specified module has been successfully exhibited. ~~Continuing with the next module of training cannot proceed until the Trainee and Trainer have shown competency in all portions of the previous module.~~

Trainee: \_\_\_\_\_ Trainer: \_\_\_\_\_

| Module/Training Activity                                   | Trainer | Date | Trainee | Date |
|--|---------|------|---------|------|
| Module 1.1: Laboratory Orientation                         |         |      |         |      |
| Module 2.1: History of Footwear                            |         |      |         |      |
| Module 2.2: Terminology of Footwear                        |         |      |         |      |
| Module 2.3: The Manufacturing Process                      |         |      |         |      |
| Module 3.1: Photography of Footwear Evidence               |         |      |         |      |
| Module 3.2: Recovery and Preservation of Footwear Evidence |         |      |         |      |
| Module 3.3: Enhancement of Footwear Evidence               |         |      |         |      |
| Module 4.1: Creating Known Footwear Standards              |         |      |         |      |
| Module 4.2: Footwear Examinations                          |         |      |         |      |
| Module 4.3: Results of Footwear Examinations               |         |      |         |      |
| Module 5.1: Forms, Records, and Reports                    |         |      |         |      |

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

|   |  |  |  |  |
|---|--|--|--|--|
| Module 6.1: The Shoeprint Capture and Retrieval Database System (SICAR) |  |  |  |  |
| Module 7.1: Preparation for Court and Legal Issues                      |  |  |  |  |
| Module 7.2: Ethics in Forensic Science                                  |  |  |  |  |
| Module 7.3: Final Written Examination                                   |  |  |  |  |
| Module 7.4: Moot Court  |  |  |  |  |
| Module 8.1: Supervised Case Work Module                                 |  |  |  |  |
| Module 8.2: Competency Text   |  |  |  |  |
| Module 9.1: 100% Administrative and 100% Technical Review               |  |  |  |  |

Raleigh/Wake City-County Bureau of Identification  
Latent Print Unit Footwear Examiner Training Manual

Issued: 8/3/15  
Issued By: Director

Chapter: LPUFTM1  
Version: 2

| Revision History |                |  |
|------------------|----------------|--|
| Effective Date   | Version Number | Reason                                     |
| 4/12/2013        | 1              | Compliance with ASCLD/LAB Requirements     |
| 8/3/15           | 2              | Updated for compliance with revised LAPM22 |
|                  |                |  |
|                  |                |  |