



Delta Forensics Comprehensive Latent Print Examiner Training Program

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Tuition \$2000 (Payment Plans are available)

Program Syllabus

Scope: Through the implementation of a modular training format, participants will learn about the various facets of latent print examination through required readings, recorded lectures, written exercises, practical exercises, comparison exercises, moot court exercises, and competency exams. This training program has been designed to be completed through a remote file transfer connection, and according to the schedule and availability of the participant. The projected timeframe for completion will be 6-12 months, depending on the activity and progression of the trainee. All comparison exercises have been designed for the use of this training program, through the acquisition of exemplar records and latent print impressions from volunteers whom have acknowledged their inclusion within the program. Upon completion, participants would be competent to conduct independent casework within the laboratory system. The program has been designed to assist laboratories train their new examiners by allowing them to focus existing personnel and resources on current responsibilities, and to allow aspiring examiners an opportunity to enter a laboratory system with a documented training program, thus increasing opportunities for incoming forensic scientists and reducing the burden and timeframe for the laboratory training program prior to the start of casework examinations. This program has included the practices set forth through the legacy SWGFAST documents, forthcoming OSAC training document, as well as proven practices implemented through the experience of the program trainer. This program is also approved by the IAI CLPE Board for 25 hours of continuing education credit towards initial certification.

Introduction Module

This module is designed to expose the trainee to the expectations of the program, supply the program checklist, and includes a form blindness test in order to begin assessment of the trainee, and allow them to begin the detailed visualization process required for impression examinations. The form blindness test consist of shape recognition exercises, the "York" test, and "That" test.

In addition, the program requires a digital imaging program to complete the annotations in latter modules, and lists suggested reading materials:

- Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology by David Ashbaugh
 - Friction Ridge Skin: Comparison and Identification of Fingerprints by James F. Cowger
 - Advances in Fingerprint Technology by Lee and Gaensslen, edited by Robert Ramotowski
 - Fingerprints and Other Ridge Skin Impressions by Champod, Lennard, Margot and Stoilovic
1. Module 1- History (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Recorded Lectures
 - i. Latent Print History: 1 Hour



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- ii. Introduction to Latent Prints: 2 Hours
 - b. Written Exercises
 - i. Set 1.1: Basic Concepts (30 questions, 2 reading assignments)
 - 1. Written question set covering overall concepts within forensic science, class vs individual characteristics, documentation, and oversight within the field.
 - ii. Set 1.2: History (21 questions, 2 reading assignments)
 - 1. Written question set covering the historical perspective, researchers and pioneers, and landmark incidents focusing on the science of fingerprints, allowing them to be used as a useful means of personal identification. Current practices and developments, as well as recent contributors are discussed.
- 2. Module 2- Latent Print Development (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Recorded Lectures
 - i. Latent Print Processing: Non-Porous Evidence (2 Hours)
 - ii. Latent Print Processing: Porous Evidence and Special Considerations (2 Hours)
 - iii. Latent Print Processing: Blood Impressions (2 Hours)
 - b. Written Exercises
 - i. Set 2.1: Non-Porous Surfaces (50 questions, 3 reading assignments)
 - 1. Written question set focusing on the types of surfaces encountered regarding non-porous substrates, the development techniques available, and their application, visualization, and collection methods.
 - ii. Set 2.2: Porous Surfaces (44 Questions, 3 reading assignments)
 - 1. Written question set focusing on the types of surfaces encountered regarding porous substrates, the development techniques available, and their application, visualization, and collection methods.
 - iii. Set 2.3: Adhesive Surfaces (14 questions, 2 reading assignments)
 - 1. Written question set focusing on the types of surfaces encountered regarding processing the adhesive side of tape, the development techniques available, their application, visualization, and collection methods.
 - iv. Set 2.4: Fingerprints and Firearms (22 questions, 3 reading assignments)
 - 1. Written question set focusing on the development of impressions on firearms, factors affecting recovery, the development techniques available, their application, visualization, and collection methods.
 - v. Set 2.5: Developing Blood Impressions (34 questions, 2 reading assignments)
 - 1. Written question set focusing on the types of surfaces blood impressions may be encountered upon, the development techniques available, their application, visualization, and collection methods.



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3. Module 3- Biology and Differential Growth (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Recorded Lectures
 - i. Friction Ridge Patterns (1 Hour)
 - b. Written Exercises
 - i. Set 3.1: Fingerprint Pattern Recognition and Classification (23 questions, 1 reading assignment)
 1. Written question set regarding the morphological features that determine pattern types, inclusion of deltas, and type lines. Definitions of each pattern type and sub classification.
 - ii. Set 3.2: Embryology and Anatomy (31 questions, 3 reading assignments)
 1. Written question set discussing the physiology of the skin, the various layers, dermal-epidermal relationship, and its effect on uniqueness and permanence
 - iii. Set 3.3: Advanced Latent Print Processing (56 questions, 4 reading assignments)
 1. Written question set focusing on advanced development techniques and methods, focusing on sequential methods and complex evidence examinations
 - iv. Set 3.4: Processing Bodies for Latent Impressions (26 questions, 2 reading assignments)
 1. Written question set focusing on the various processing and examination methods for the development of impressions on skin, to include methods, visualization, collection, and evidentiary considerations.
 - v. Set 3.5: Fluorescence and Alternate Light Sources (38 Questions, 1 reading assignment)
 1. Written question set focusing on the physical properties of light, the visualization of various development techniques, effect and visualization of biological stains, and the proper collection of evidence.
 - c. Practical Exercises
 - i. Practical Exercise 3.1: Pattern recognition
 1. Trainees will be required to review five (5) 10-print cards, highlight the placement of the core and delta for each finger, and specify the pattern type present in each fingerprint.
 - ii. Practical Exercise 3.2: Basic Pattern Comparisons
 1. Trainees will be given twenty-five (25) sets of known fingerprints, with six (6) prints per set. They are asked to recognize and specify the matching pair in each set.
4. Module 4- Advanced Latent Print Processing and Photography (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises



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should be completed over the course of several hours, according to the progression of the trainee)

- a. Recorded lectures
 - i. Basic ALS and Forensic Photography (2 Hours)
 - ii. Basic Digital Photography (2 Hours)
 - iii. Basic Evidentiary Photography (2.5 Hours)
 - b. Read the Delta Forensics Photography Guide
 - c. Written Exercises
 - i. Set 4.1: Photography (50 questions, 3 reading assignments)
 1. Written question set focusing on the various elements and principles of photography, to include: Lighting methods, exposure, aperture, ISO, and best practices for obtaining proper exposure and photographic principles.
 - ii. Set 4.2: Overall Topics in Latent Print Examination (50 questions)
 1. Written question set covering the topics presented thus far in the training program. Question set is designed as a review prior to competency Exam 1
 - d. Competency Exam 1
 - i. 50 Question written exam, submitted through website, on the various topics presented through Module 4, focusing on latent print processing, general topics, pattern types, history, and morphological features.
5. Module 5- Quality Assurance (The reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
- a. Written Exercises
 - i. Set 5.1: (1 reading assignment)
 1. Discussion of the importance of quality assurance protocols within the forensic science laboratory following the Brandon Mayfield case.
 - ii. Set 5.2: (2 reading assignments)
 1. Discussion of the concepts of conformational and contextual bias within forensic science
6. Module 6- Overview of Exemplars and Comparisons (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
- a. Recorded lectures
 - i. Obtaining Quality Exemplars (2 Hours)
 - ii. Features of Friction Ridge Examination (3 Hours)
 - b. Practical Exercises
 - i. Set 6.1: 10-print Comparison Exercise 1



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1. 10 plain impressions will be compared to 10 exemplar records using Delta Forensics worksheets to document results
 - ii. Set 6.2: 10-print Comparison Exercise 2
 1. 10 plain impressions will be compared to 10 exemplar records using Delta Forensics worksheets to document results
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7. Module 7- General Concepts of Friction Ridge Examination (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Distortion Exercise
 - i. Trainee creates impressions using various movements, per instructions, to observe the resulting impression and features within following the creation of the impression.
 - b. Analysis Exercise
 - i. Trainee orients and analyzes 50 latent impressions with annotations, utilizing the confidence based-GYRO system. Images are pasted onto an analysis monograph, where additional information is documented during the analysis phase (Pattern type, level 1/2/3 detail, AFIS eligibility, anatomical origin).
 - c. Written Exercises
 - i. Set 7.1: Basic Concepts in Comparisons (24 questions, 3 reading assignments)
 1. Discussion of the examination process, terminology within the comparative discipline, various types of minutae
 - ii. Set 7.2: Advanced Concepts in Comparisons (21 questions, 2 reading assignments)
 1. Written exercise focusing on the various types of features and considerations that may be encountered in the examination process. The articulation of more advanced concepts is discussed regarding decisions and conclusions as a part of the examination method.
 - iii. Set 7.3: AFIS (22 questions, 3 reading assignments)
 1. Written exercise focusing on the use of AFIS and its operability as a examination tool.
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8. Module 8- Advanced Concepts in Friction Ridge Examination (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Recorded Lecture
 - i. Search Smart Techniques (1 Hour)
 - b. Practical Exercises
 - i. Series of twelve (12) comparison exercises designed to mimic casework latent impressions. Exercises will increase in complexity. All exercises have been designed from latent and exemplar impressions obtained through volunteers to the program. All examinations will be done following the ACE-V process,



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documented through worksheets and a lab report will be generated for review. All analysis and comparison decisions will require digital annotations that will also be reviewed. The latent impressions will consist of: Pattern area, sides, tips, joints, and palms.

9. Module 9- Legal Standard in Friction Ridge Examination (In addition to the viewing time for the recorded lectures, the reading assignments and completion of the written exercises should be completed over the course of several hours, according to the progression of the trainee)
 - a. Recorded Lecture
 - i. Latent Print Testimony (2 Hours)
 - b. Required Reading
 - i. Frye Decision
 - ii. Daubert Decision
 - iii. FRE Series 700
 - c. Written Exercises
 - i. Set 9.1: Legal Issues and Fingerprints (66 questions, 2 reading assignments)
 1. Exercise focusing on the legal standards and admissibility of evidence regarding latent print examination. The best practices for expert witness testimony and principles of discovery are discussed.
 - ii. Set 9.2: Compare the legal standards of Frye, Daubert and Federal Rules of Evidence
 - iii. Set 9.3: Discuss evidentiary issues raised in one case that was scrutinized by the Daubert Standard, highlighting the factors that lead to the legal decision.

10. Module 10- Competency Exams
 - a. Part 1
 - i. Written examination discussing all topics and material learned throughout the program, to include pattern recognition
 - b. Part 2
 - i. Comparison examination comprised of 15 latent impressions of varying quality, mimicking traditional casework. All impressions will be examined and conclusions rendered using worksheets and report formats.
 - c. Part 3
 - i. Moot Court exercise based upon the examination in Part 2. This exercise will be held via Skype communications between the trainee, trainer and one additional qualified trainer to assist with questioning
 - d. Upon successful completion of the program, a letter of competency will be issued by the trainer. The trainee may keep records of the program for their own training records.