



Latent Print Examiner
Training Manual

Idaho State Police Forensic Services
Latent Print Discipline

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Latent Print Examiner
Training Manual
ISP Forensic Services

History Page

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Overview of Training Program

- A. All new latent print examiners will be assigned to qualified latent print examiner(s) who will act as their trainer(s).
- B. Trainees must pass written tests and/or practical exercises on required objectives. All tests are closed book unless otherwise noted.
- C. The duration of training is 1 1/2 to 2 years depending upon the progress of the examiner and their demonstrated aptitude and ability. Training blocks may be completed in any order. Trainees with previous training and experience will be evaluated against all training criteria to determine which standards have been met and areas that may require additional training.
- D. During the training phase the trainee should attend workshops and/or training classes in the areas of latent print processing, latent print comparison, crime scene processing, courtroom testimony, digital imaging, and photography. Training on additional topics may be attended as approved. Attendance of outside training courses/workshops is subject to course availability and budget constraints. Requests for training shall be approved through the chain of command. A list of recommended latent print training courses may be found in Appendix "B" of this training manual.
- E. All cases processed and examinations performed during training will be with the trainee working as "the hands of the trainer" as defined by the ISPFS Quality/Procedure Manual.
- F. Reading is an on-going process during the training phase and shall include books, articles, and journals held in the Latent Section Library. A list of required reading for each training block is listed along with a signoff for the completion of each task. A list of additional recommended reading for latent examiners may be found in Appendix "A" of the training manual.
- G. During training, the trainee shall accompany their coach and other trained latent examiners on field case processing. Allowing the trainee to accompany more than one latent print examiner will afford them the opportunity to learn the various techniques that each examiner utilizes and to develop their own style of crime scene processing. The trainee's coach and the programs supervisor shall determine the point at which the trainee is able to work field cases on their own.
- H. The trainee shall satisfactorily complete competency tests in the areas of digital imaging, AFIS, latent print processing, and latent print comparisons.

- I. The trainee may accompany other examiners to court to gain exposure to expert testimony on latent prints during the training period.
- J. The trainee shall participate as an expert witness in a moot court prepared by other latent print examiners to gain exposure to latent print testimony. In the event that the trainee has previous testimony experience that experience shall be evaluated to ensure that all training criteria have been met.
- K. Any latent print training classes that are taught by FS personnel during the training phase shall be observed by the trainee. After attending these classes, the trainee may be required to assist or teach some segments of the training classes.
- L. The trainee shall keep a record of all experience obtained during the training phase. **This shall include time spent working with inked prints, classes attended, classes instructed, court testimony observed or performed (including moot), field cases observed or worked, # of comparisons, # of identifications effected, # of AFIS comparisons & identifications, # of cases processed, and special projects completed during the training phase.** These statistics will be a valuable aid for future court testimony.
- M. It is encouraged that the trainee make application to become a member of the International Association for Identification (IAI) and the Pacific Northwest Division of IAI. A list of professional associations and certifications may be found in Appendix "C" of this Training Manual.
- N. This training manual does not preclude the coach from adding other pertinent topics as may be applicable and/or related to the science of friction ridge analysis, forensic science, and the criminal justice system. However, additional courses or topics must be approved by the Latent Program Supervisor prior to instruction or incorporation within the program.
- O. Training blocks may be segmented as necessary for optimal student understanding of the subjects and concepts presented. Field trips are authorized to enhance courses under current study. Training blocks may be supplemented by additional required readings, group discussion, independent and direct study, practical exercise, or research (or any combination thereof).

Laboratory Introduction

1.1 Objectives:

- 1.1.1 Orientation to the Idaho State Police Forensic Services (FS).
- 1.1.2 Understanding of the organization structure, chain of command, and policies/procedures for FS.
- 1.1.3 Understanding of laboratory security and the need for confidentiality.
- 1.1.4 Understanding of the quality assurance/quality control guidelines for FS.
- 1.1.5 Understanding of the safety guidelines for FS.
- 1.1.6 Knowledge of the potential explosion, fire, and contamination safety hazards associated with latent print development powders, solvents and chemicals.
- 1.1.7 Understanding of the professional duties moral obligations, and code of ethics for forensic Scientists.

1.2 Required Reading:

- | | Trainee / Completion Date |
|---|---------------------------|
| 1.2.1 Idaho State Police Employee Handbook. | _____ / _____ |
| 1.2.2 Idaho State Police Forensic Services (ISPFS) Quality/Procedure Manual. | _____ / _____ |
| 1.2.3 ISPFS Health and Safety Manual. | _____ / _____ |
| 1.2.4 Latent Print Section Analytical Method (AM). | _____ / _____ |
| 1.2.5 Safety for the Forensic Identification Specialist Nancy E. Masters - 2nd Edition. | _____ / _____ |

1.3 Lecture:

- 1.3.1 The analyst shall complete an approved Ethics training course. The online Ethics training course sponsored by West Virginia University is the current approved course. A change to the currently approved ethics course must be approved by the Major/Manager.

Course Completed: _____

Date: _____ Attach copy of certificate

1.4 Unit Exams: Supervisor / Date / P or F

1.4.1 Module 1:
Competency Test _____ / _____ / _____

1.4.2 ISPFS Health & Safety Manual Exam
(open book) _____ / _____ / _____

1.4.3 ISPFS Quality/Procedure Manual Exam
(open book) _____ / _____ / _____

1.5 Tetanus/Hep Vaccination
Completion or Declination: Trainee / Completion Date
_____ / _____

1.6 Sign Off of Module 1: Supervisor / Completion Date
_____ / _____

2 Evidence Handling

- 2.1 Objectives:
- 2.1.1 Understanding of the case/evidence acceptance policy and evidence receiving procedures.
 - 2.1.2 Understanding of evidence packaging and chain of custody.
 - 2.1.3 Understanding of evidence handling, prevention of contamination, and documentation.
 - 2.1.4 Understanding of, and the ability to demonstrate proper procedures for handling and marking physical evidence received for examination.
 - 2.1.5 Understanding of proper procedures for packaging physical evidence for subsequent latent print examination without reducing its evidentiary value.

2.2 Required Reading: Trainee / Completion Date

2.2.1 ISPFS Quality/Procedure Manual
Sect. 5.8 Handling Items of Evidence _____ / _____

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2.2.2 Latent Print Section AM Section 5. _____/_____

2.2.4 Physical Evidence collection Manual (ISP website) _____/_____

2.3 Training Exercises: Trainee / Completion Date

2.3.1 Evidence packaging lecture: formal training class or self led power point. _____/_____

2.3.2 Trainer Led Introduction to Evidence Procedures: (Sign-in/out, packaging, storage)

Examiner Trainer

Date: _____

2.4 Unit Exam: Supervisor / Date / P or F

2.4.1 Module 2: Competency Test _____/_____/_____

2.5 Sign Off of Module 2: Supervisor / Completion Date

_____/_____

3 History and Background of Fingerprint Identification

3.1 Objectives:

3.1.1 Understanding of early methods of personal identification (Bertillon system, photography, scars, tattoos, sight recognition, marks, and mutilations).

3.1.2 Understanding of the earliest recorded awareness of fingerprints (cliff dwellers-Chinese).

3.1.3 Understanding of early anatomical observations (Grew, Malpighi, Purkinje, et. Al.) and have an understanding of the biological significance of friction skin ridge patterns and their formation.

3.1.4 Understanding of the scientific observations and use of fingerprints leading to modern fingerprint identification (Herschel, Faulds, Galton, Vucetich, and Henry).

- 3.1.5 Understanding of the chronology of the introduction and use of fingerprints in the United States (Thompson, Twain, DeForest, Ferrier, NY Prison System, U.S. Navy and Army, FBI).
- 3.1.6 Understanding of the current criminal and civil applications of fingerprints, palm prints, and footprints and how these applications developed in the United States.
- 3.1.7 Understanding of the existence and development of various criminal and civil fingerprint files (FBI, U.S. military medical records, state and local fingerprint and palm print repositories).

| 3.2 | Required Reading: | Trainee / Completion Date |
|-------|---|---------------------------|
| 3.2.1 | Fingerprint Techniques, Andre Moenssens. Chapter 1, "The History of Fingerprinting." Pages 1-26. Chapter 2, "The Nature of Friction Skin." Pages 27-63. | _____ / _____ |
| 3.2.2 | Finger Prints, Palms and Soles, by Harold Cummins and Charles Midlo. Chapter 1, "History." Pages 3-21. Chapter 2, "General Considerations." Pages 22-42. | _____ / _____ |
| 3.2.3 | Criminalistics, 9th edition by Richard Saferstein. Chapter 14, "History of Fingerprints." Pages 428- 430. | _____ / _____ |
| 3.2.4 | Advances in Fingerprint Technology 2 nd edition, by Lee, Gaensslen. Chapter 1, "History and Development of Fingerprinting." Pages 1- 40. | _____ / _____ |
| 3.2.5 | Friction Ridge Skin, by James F Cowger, Chapter 1, pages 1-7. | _____ / _____ |
| 3.2.6 | Fingerprints and The Law, by Andre A. Moenssens. Chapter 1, "History Perspective." Pages 1- 9. | _____ / _____ |

3.2.7 Quantitative-Qualitative Friction Ridge Analysis,
by David R. Ashbaugh. Chapter 2,
"History of Friction Ridge Identification."
Pages 11-60. _____/_____

3.2.8 The Fingerprint Sourcebook by Scientific Working
Group on Friction Ridge Analysis, Study and
Technology (SWGFAST), et al. Chapter 1:
History. Available on line from the USDOJ _____/_____

3.2.9 Fingerprints and the Law
By Andre A. Moenssens
Chapters 7 "Fingerprint Evidence in Criminal Cases"
Chapter 8 "Fingerprints in Non-Criminal Cases"
Pages 108-147 _____/_____

3.3 Practical Exercise:

3.3.1 Write a short synopsis of the contributions of each of the following figures:
Hershel, Faulds, Galton, Vucetich & Henry

Supervisor / Date / P or F

_____/_____/_____

3.4 Unit Exams:

Supervisor / Date / P or F

3.4.1 Module 3:
Competency Test

_____/_____/_____

3.5 Sign Off of Module 3:

Supervisor / Completion Date

_____/_____

4 Biology and Physiology of Friction Ridge Skin

4.1 Objectives:

4.1.1 Understand the biology and physiology of friction ridge skin.

4.1.2 Understanding of the basic foundations of the science of friction ridge
identification (persistence and uniqueness).

4.1.3 Understanding of the basic anatomy and terminology of the hands and feet.

- 4.1.4 Understanding of the general chemical composition of human perspiration as a means of understanding the composition of latent print residue.
- 4.1.5 Knowledge of genetic abnormalities of friction ridge skin (e.g. dysplasia, copal patterns, dissociated ridges).
- 4.1.6 Knowledge of alteration and mutilation of friction ridge skin.

| 4.2 | Required Readings: | Trainee / Completion Date |
|-------|---|---------------------------|
| 4.2.1 | Scott's Fingerprint Mechanics, by Robert D. Olsen, Sr. Chapter 1, "Fingerprint Identification." Pages 5-14, 24-30. | _____/_____ |
| 4.2.2 | Fingerprint Techniques, by Andre Moenssens. Chapter 2, "The Nature of Friction Skin." Pages 60-63. | _____/_____ |
| 4.2.3 | Finger Prints, Palms and Soles, by Harold Cummins and Charlie Midlo. Chapter 8, "Elements of Finger-Print Identification." Pages 143-155. | _____/_____ |
| 4.2.4 | Criminalistics, 9th edition by Richard Saferstein. Chapter 14, "Fingerprints." | _____/_____ |
| 4.2.5 | Forensic Science an Introduction to Criminalistics, by Deforest, Gaensslen, & Lee. Chapter 12 "Fingerprints and Other Patterns for Personal Identification" Pages 330 -358. | _____/_____ |
| 4.2.6 | Quantitative-Qualitative Friction Ridge Analysis, by David R. Ashbaugh. Chapter 3, "Friction Ridge Medium." Pages 61-85. | _____/_____ |
| 4.2.7 | Fingerprints and Other Friction Ridge Skin Impression by Christophe Champod et. Al. Chapter 1" Friction Ridge Skin" Pages 1-13 | _____/_____ |
| 4.2.8 | Paper – "The Critical Stage of Friction Ridge Skin and Pattern Formation" by Kasey Wertheim and Alice Maceo | _____/_____ |

4.2.9 Paper – “Qualitative Assessment of Skin Deformation:
A Pilot Study.” JFI, Vol. 59, No. 4, 2009. _____/_____

4.2.10 Paper – “ Discriminability of Fingerprints of Twins.”
JFI, Vol. 58, No. 1, 2008 _____/_____

4.2.11 Paper – “Fingerprint Patterns: A Study on the
Finger and Ethnicity Prioritized Order of Occurrence.”
JFI, Vol. 55, No. 4, 2005. _____/_____

4.2.12 Paper – “Permanent Intentional Fingerprint Mutilation” Kasey Wertheim
_____/_____

4.2.13 Paper – “An Extreme Case of Fingerprint Mutilation.” JFI, Vol. 48, No. 4,
1998. _____/_____

4.3 Practical Exercise:

4.3.1 Find and read two articles (published within the past 7 years) on the biology
and physiology of friction Ridge skin

| Title | Trainee / Completion Date |
|-------|---------------------------|
| _____ | _____/_____ |
| _____ | _____/_____ |

4.3.2 Present a short synopsis of the papers you read to the latent section

Supervisor / Completion Date
_____/_____

4.4 Unit Exam:
Module 4:
Competency Test
Supervisor / Date / P or F
_____/_____/_____

4.5 Sign Off of Module 4:
Supervisor / Completion Date
_____/_____

5 Friction Ridge Pattern Recognition and Interpretation

5.1 Objectives:

- 5.1.1 Understanding of common terminology and definitions associated with friction ridge pattern recognition (arch, loop, and whorl).
- 5.1.2 Understanding of pattern recognition.
- 5.1.3 Awareness and understanding of the Henry Classification System to include:
 - 5.1.3.1 Origin
 - 5.1.3.2 FBI extensions
 - 5.1.3.3 Pattern interpretation
 - 5.1.3.4 Parts of classification
- 5.1.4 Awareness and understanding of other classification systems (NCIC Classification System, American System, and the Vucetich System)
- 5.1.5 Understanding of friction ridge formations as they relate to recognition, interpretation, and identification.

5.2 Required Reading

- | | Trainee / Completion Date |
|--|---------------------------|
| 5.2.1 The Science of Fingerprints, by the FBI. Chapters 2-8. Pages 5-110. | _____ / _____ |
| 5.2.2 Friction Ridge Skin, by James F. Cowger. Chapter 3, "Classification." Pages 35-70. | _____ / _____ |
| 5.2.3 Fingerprint Techniques, by Andre A. Moenssens. Chapter 3, "Pattern Interpretation." Pages 64-101. | _____ / _____ |
| 5.2.4 Fingerprint Techniques, by Andre A. Moenssens. Chapter 6, "Fingerprint Classification in the United States." Pages 158-173. | _____ / _____ |
| 5.2.5 Scott's Fingerprint Mechanics, by Robert D. Olsen Sr., Chapter 1, Sections 7, 8, and 9, "Fingerprint Classification," "Space Value on Fingerprint Cards," "Fingerprint Patterns are Complex Yet Simple." | |

- Pages 17-21. _____/_____
- 5.2.6 Criminalistics, 9th edition by Richard Saferstein.
Chapter 14, "Classification of
Fingerprints." Pages 430-435. _____/_____
- 5.2.7 Fingerprints and The Law, by Andre
A. Moenssens. Chapter 2, "Fingerprint
Principles and Techniques."
Pages 10-23. _____/_____
- 5.2.8 The Fingerprint Sourcebook by Scientific Working
Group on Friction Ridge Analysis, Study and
Technology (SWGFAST), et al. Chapter 5:
Systems of fingerprint classification. Available
on line from the USDOJ _____/_____
- 5.3 Practical Exercise
- 5.3.1 Fingerprint Classification Exercise
Classify three fingerprint cards for both
Primary Henry and NCIC _____/_____
- Supervisor / Date / P or F
_____/_____/_____
- 5.4 Unit Exam: Supervisor / Date / P or F
- 5.4.1 Module 5:
Competency Test _____/_____/_____
- 5.5 Sign Off of Module 5: Supervisor / Completion Date
_____/_____

6 Automated Fingerprint Identification System (AFIS)

6.1 Objectives:

- 6.1.1 Understanding of automation technology and theory of operation to include:
6.1.1.1 The history of the development of friction ridge automation
technology.

- 6.1.1.2 The theory of the operation of friction ridge automation technology to include distortion when three-dimensional friction ridge skin is captured in a two-dimensional image.
- 6.1.2 Understanding of the function and use of image capture to include:
 - 6.1.2.1 Types of friction ridge recordings (e.g. rolled, flat, simultaneous, palm).
 - 6.1.2.2 Methods of friction ridge capture (e.g. ink, live scan).
 - 6.1.2.3 Types of capture devices (e.g. live-scan, flatbed, camera).
 - 6.1.2.4 Point of capture variables (e.g. condition of fingers, condition of platen, rolling speed, movement).
 - 6.1.2.5 Control measures needed to achieve quality friction ridge images (e.g. scan resolution, compression rate, equipment maintenance, calibration).
 - 6.1.2.6 Procedures for addressing amputations, temporary injuries, skin conditions, and rescans.
- 6.1.3 Understanding of the function and use of Automated Fingerprint Identification Systems (AFIS) to include:
 - 6.1.3.1 AFIS process related to acquisition, classification, searching, storage, retrieval, identification, and final reporting of friction ridge records.
 - 6.1.3.2 Friction ridge search criteria (e.g. designated finger search, how many fingers, palm areas).
 - 6.1.3.3 Importance of quality assurance on maintaining the integrity of friction ridge data.
 - 6.1.3.4 Quality controls that ensure completeness, image quality, and data integrity.
- 6.1.4 Gain a working knowledge of the NEC Automated Fingerprint Identification System (AFIS) Global Workstation – Latent (GWS-L) and the Intergraded Automated Fingerprint Identification System (IAFIS) to include:
 - 6.1.4.1 Who handles component maintenance and calibration.
 - 6.1.4.2 System requirements and limitations including text data fields, fingerprint and palm print quality, finger sequence and image replacement, image rotation, and toleration for pattern interpretation.
 - 6.1.4.3 Minutia recognition, placement, rotation, ridge counts, and other minutiae factors related to searching and matching.
 - 6.1.4.4 Limitations of system interoperability.
 - 6.1.4.5 Integration of friction ridge image, mug shot, scars, marks, tattoos, minutiae, other biometrics, as well as personal descriptors, and criminal history information.

- 6.1.4.6 Search parameters, pattern classification and referencing, minutiae extraction, search algorithms, significance in the range of candidate scores, threshold scoring, and candidate list comparisons, matching.
- 6.1.4.7 AFIS search capabilities in regards to latent print vs. ten print, ten print vs. latent print, latent print vs. latent print, ten print vs. ten print, and palm print vs. palm print.
- 6.1.4.8 "Lights out" processing of searches (i.e. mobile search capabilities).
- 6.1.4.9 Logical search progression (i.e. state, regional, national).
- 6.1.4.10 Filtering criteria used to establish logical candidates (e.g. finger position, sex, classification, race, offense, geographic location).
- 6.1.4.11 Search result contents (e.g. ranked order, unique identifier, finger or palm position).
- 6.1.4.12 Differences between AFIS digital images and original friction ridge impressions (e.g. potential loss of quality due to compression of image, monitor resolution, capture resolution).
- 6.1.4.13 Printer technology limitations vs. examinations from original friction ridge documents (e.g. paper quality, inked fingerprint cards).
- 6.1.4.14 AFIS processes related to latent print searches.
- 6.1.4.15 Various search options among databases within the system (e.g. image, feature).
- 6.1.4.16 Manual and automatic encoding of minutiae.
- 6.1.4.17 File penetration benefits and liabilities of partial vs. full data base searches.
- 6.1.4.18 Record authentication processes (e.g. correct association of name, unique identifier, friction ridge images, and criminal history record).

6.2 Required Reading:

Trainee / Completion Date

- 6.2.1 Scott's Fingerprint Mechanics
Robert D. Olsen Sr. Chapter 8, Section 111
"Computer Identification of Latent Fingerprints"
Pages 355-357. _____/_____
- 6.2.2 Criminalistics, 9th edition
Richard Saferstein,
Chapter 14, "AFIS" Pages 436-438. _____/_____
- 6.2.3 Advances in Fingerprint Technology
2nd edition Lee, Gaensslen,
Chapter 8, "AFIS" Pages 275-321. _____/_____

- 6.2.4 NEC User Guides
 - 6.2.4.1 GWS-NSW _____/_____
 - 6.2.4.2 GWS-L _____/_____
 - 6.2.4.3 GWS-L Quick Reference Guide _____/_____
 - 6.2.4.4 GWS-L Update Difference Quick Reference Guide _____/_____
 - 6.2.4.5 NEC ELMA Best Practices _____/_____
- 6.2.5 Paper – “ A Latent Print Examiner’s Guide to IAFIS” JFI, Vol. 57, No. 4, 2007. _____/_____

6.3 Lecture:

- 6.3.1 The analyst shall complete an approved AFIS training course. The on-line AFIS training course sponsored by West Virginia University is the current approved course. If a previously approved course becomes unavailable, the Latent Section Supervisor will choose or design a new course that meets the training module requirements.

Course Completed: _____

Date: _____ Attach copy of certificate

6.4 Practical Exercise:

- 6.4.1 Each analyst will complete the following searches with a trained AFIS operator:
 - 6.4.1.1 20 latent searches covering all applicable ELMA algorithms.
 - 6.4.1.2 10 IAFIS latent searches

Search documentation will be maintained on AFIS search worksheets. Copies of all worksheets will be attached for documentation purposes.

6.5 Unit Exams / Competency Test: Reviewer / Date / P or F

6.5.1 Module 6:
Competency Test _____/_____/_____

6.5.2 AFIS Competency Test: The analyst will independently search 5 mock latent prints through the Automated Fingerprint Identification System. Competency test prints may consist of palm prints, low minutia prints, distorted prints, and non-matching prints.

_____/_____/_____

6.5.3 The analyst shall generate a list of AFIS related court qualifying questions and provide sample answers to those questions that could be presented in a court of law.

_____/_____/_____

6.6 Sign Off of Module 6: Supervisor / Completion Date

_____/_____

7 Recording Inked Fingerprints, Palm Prints, and Footprints

7.1 Objectives:

7.1.1 Understanding of the various methods for recording known friction ridges for criminal history or personal identification including:

7.1.1.1 Introductory knowledge of chemical (inkless) systems for recording friction ridges.

7.1.1.2 Introductory knowledge of recording friction ridge detail using printer's ink.

7.1.1.3 Introductory knowledge of recording friction ridge detail using the black powder/adhesive lift (Handiprint) method.

7.1.1.4 Introductory knowledge of electronic capture systems (Live Scan) for recording friction ridges.

7.1.2 Understanding of the quality of friction ridge detail produced by each method.

7.1.3 Understanding of the benefits associated with obtaining victim/elimination prints and complete friction ridge exemplars (major case prints).

7.1.4 Understanding of the proper method of completing fingerprint and palm print card information, sequence for recording fingers, and method of printing plain impressions.

7.1.5 Demonstrate ability to properly use ink and roller to record fingerprints, palm prints, and footprints (including equipment maintenance).

7.1.6 Demonstrate ability to properly record complete friction ridge exemplars (major case prints).

| 7.2 | Required Reading | Trainee / Completion Date |
|-------|--|---------------------------|
| 7.2.1 | Scott's Fingerprint Mechanics, by Robert D. Olsen Sr. Chapter 2, "Taking Finger, Palm, and Footprints." Pages 55-101. | _____ / _____ |
| 7.2.2 | Fingerprint Techniques, by Andre A. Moenssens. Chapter 5, "Recording Prints." Pages 137-145. 157. | _____ / _____ |
| 7.2.3 | The Science of Fingerprints, FBI. Chapter 9, "Techniques for Taking Good Fingerprints." Pages 111-115. Chapter 10, "Problems in Taking Inked Fingerprints." Pages 116-128. | _____ / _____ |
| 7.2.4 | Finger Prints, Palm and Soles, by Harold Cummins, Charles Midlo. Chapter 3, "Methods of Printing." Pages 45-55. | _____ / _____ |
| 7.2.5 | Friction Ridge Skin, by James F. Cowger. Chapter 2, "Taking Inked Prints." Pages 9-33. | _____ / _____ |
| 7.2.6 | Latent Print Section AM Sections 9.7 | _____ / _____ |
| 7.2.7 | The Fingerprint Sourcebook by Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST), et al. Chapter 4: Recording Living and Postmortem Friction Ridge Skin Exemplars. Available on line from the USDOJ | _____ / _____ |

| 7.3 | Practical Exercise | Trainer / Date / P or F |
|-------|--|-------------------------|
| 7.3.1 | Rolling Inked Prints | _____ / _____ / _____ |
| 7.3.2 | Taking Major Case Prints (including foot prints) | _____ / _____ / _____ |
| 7.3.3 | Black Powder Adhesive Lift Method | _____ / _____ / _____ |

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7.3.4 Familiarity with live scan terminal and production of a live scan fingerprint card _____/_____/_____

7.4 Unit Exam: Supervisor / Date / P or F
7.4.1 Module 7: _____/_____/_____
Competency Test

7.5 Sign Off of Module 7: Supervisor / Completion Date
_____/_____

8 Recording Post-mortem Exemplars

- 8.1 Objectives:
- 8.1.1 Understanding of the procedures and equipment used in fingerprinting deceased persons.
 - 8.1.2 Understanding of the effects and conditions of rigor mortis and stages of decomposition.
 - 8.1.3 Understanding of the legal considerations and procedures for the removal of fingers or hands and subsequent preservation.
 - 8.1.4 Understanding of the disaster squad services available from the FBI, Latent Fingerprint Section.
 - 8.1.5 Understanding of equipment maintenance and personal safety considerations involving body fluid contamination, accidental puncture from needles, etc.

8.2 Required Reading Trainee / Completion Date
8.2.1 Friction Ridge Skin, by James F. Cowger. Chapter 2, "Printing the Deceased." Pages 28-33. _____/_____

8.2.2 The Science of Fingerprints, FBI, Chapter 11, "Problems and Practices in Fingerprinting the Dead." Pages 129-156. _____/_____

- 8.2.3 Fingerprint Techniques, by Andre A. Moenssens. Chapter 5, "Postmortem Fingerprinting." Pages 145-150. _____/_____
- 8.2.4 Scott's Fingerprint Mechanics, by Robert D. Olsen Sr. Chapter 2, Section 30, "Postmortem Fingerprinting." Pages 84-89. _____/_____
- 8.2.5 The Fingerprint Sourcebook by Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST), et al. Chapter 4: Recording Living and Postmortem Friction Ridge Skin Exemplars. Available on line from the USDOJ _____/_____
- 8.2.6 Paper – "Using Fingerprint Powder to Record Friction Ridge Details form a Cadaver." JFI, Vol. 59, No. 3, 2009 _____/_____
- 8.2.7 Paper – "The Boiling Technique: A Method for Obtaining Quality Postmortem Impressions from Deteriorating Friction Ridge Skin." JFI, Vol.57, No. 3, 2007. _____/_____
- 8.2.8 Paper – "Obtaining Fingerprint and Palm print Impressions for Decomposed Bodies or Burn Victims Using the Mikrosil Casting Method." JFI, Vol. 55, No. 4, 2005. _____/_____
- 8.3 Practical Exercises. Trainer / Date / P or F
- 8.3.1 Taking prints using post mortem spoon (mock exercise) _____/_____/_____
- 8.3.2 Injecting post mortem prints (mock exercise) _____/_____/_____
- 8.3.4 Assist with post mortem prints in the lab or at autopsy Case # / Trainer / Date
_____/_____/_____

8.4 Unit Exam: Supervisor / Date / P or F
8.4.1 Module 8:
Competency Test _____/_____/_____

8.5 Sign Off of Module 8: Supervisor / Completion Date
_____/_____

9 Sections and Services of a Forensic Laboratory

9.1 Objectives:

9.1.1 Understanding of other forensic disciplines to include: shoeprint/tire track, firearms/tool marks, fire debris, drug chemistry, biological screening, DNA, toxicology, breath alcohol, trace evidence, and physical match.

9.1.2 Understanding of the capabilities, basic operating procedures, and manner in which latent print procedures interface with:

10.1.2.1 Forensic Document Examination

10.1.2.2 Firearms and Tool marks

10.1.2.3 Chemistry/Toxicology

10.1.2.4 Biology/DNA

10.1.2.5 Microanalysis/Trace Evidence

10.1.2.6 Shoe print/tire track

9.1.3 Understanding of the potential for loss, contamination, and destruction of other types of forensic evidence (indented hand writing, body fluids, etc.) when more than one discipline is to process the same item of evidence. An ability to preserve other types of forensic evidence when processing for latent prints.

9.1.4 Understanding of the proper procedures for completing forms, correspondence, and packaging of evidence to be forwarded to national or regional laboratories.

9.2 Required Reading:

9.2.1 Criminalistics, 9th edition
Richard Saferstein,
Chapter 1 "Introduction" pgs. 2-25 _____/_____

- 9.2.2 Criminalistics, 9th edition
Richard Saferstein,
Chapter 8 “Hairs, Fibers, and Paint” pgs. 208-239 _____/_____
- 9.2.3 Forensic Science an Introduction to
Criminalistics, by Deforest, Gaensslen,
& Lee. “Handwriting” 366 – 370. _____/_____
- 9.2.4 Criminalistics, by Richard Saferstein.
Chapter 13, “DNA”. _____/_____
- 9.2.5 Death Investigation Handbook by Louis N. Eliopoulos
Chapter 67 “ Forensic Odontology
Pages 679 – 693. _____/_____
- 9.2.6 Criminalistics, 9th edition
Richard Saferstein,
Chapter 15, “Firearms, Tool Marks, and Other Impressions”
Pages 458-495. _____/_____
- 9.2.7 Criminalistics, 9th edition
Richard Saferstein,
Chapter 9, “Drugs”
Pages 246-277. _____/_____
- 9.2.8 Criminalistics, 9th edition
Richard Saferstein,
Chapter 10. “Forensic Toxicology”
Pages 278-309. _____/_____
- 9.2.9 Criminalistics, 9th edition
Richard Saferstein,
Chapter 16. “Document and Voice Examination”
Pages 496-521. _____/_____
- 9.2.10 Criminalistics, 9th edition
Richard Saferstein,
Chapter 11, “Forensic Aspects of Arson and Explosion Investigations”
Pages 310-342. _____/_____

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9.3 Practical Exercises:

9.3.1 Practical exercises to other Forensic disciplines may be obtained through reading, observation, online training and/or coursework.:

| | Trainee Completion/ Date |
|------------------------------|--------------------------|
| 9.3.1.1 Biology Screening | _____/_____ |
| 9.3.1.2 Breath Alcohol | _____/_____ |
| 9.3.1.3 DNA | _____/_____ |
| 9.3.1.4 Drug Chemistry | _____/_____ |
| 9.3.1.5 FES | _____/_____ |
| 9.3.1.6 Shoeprint/Tire Track | _____/_____ |
| 9.3.1.7 Firearms/Tool Marks | _____/_____ |
| 9.3.1.8 Fire Debris | _____/_____ |
| 9.3.1.9 Toxicology | _____/_____ |

9.4 Unit Exam:

9.4.1 Module 9:
Competency Test

Supervisor / Date / P or F

_____/_____/_____

9.5 Sign Off of Module 9:

Supervisor / Completion Date

_____/_____

10 Introduction to Latent Prints and Crime Scenes

10.1 Objectives:

10.1.1 General knowledge of the science of fingerprints to include processing, comparison and crime scenes.

- 10.1.2 Understanding of the services offered by the Latent Print Section including evidence processing, comparison, post mortem/elimination fingerprinting, AFIS, and clan lab/crime scene response.
- 10.1.3 Understand the documentation requirements for latent print processing both in the lab and at scenes.
- 10.1.4 An understanding of the professional duties, moral obligations, and code of ethics for Latent Print Examiners.
- 10.1.5 An understanding of the personal safety hazards posed by blood borne pathogens (AIDS virus, hepatitis, etc.) present on body fluid contaminated evidence that is to be processed for latent prints. Knowledge shall include proper work area disinfection, procedures for handling needles and sharps, and use of personal protective equipment, clothing, gloves, etc.
- 10.1.6 Introductory knowledge of various crime scene search techniques, including commonly prescribed searching sequences (grid, spiral, strip, etc.).
- 10.2 Required Reading Trainee / Completion Date
- 10.2.1 The Science of Fingerprints, by FBI Chapter 13, "Latent Impressions" Pages 170-172. _____ / _____
- 10.2.2 Friction Ridge Skin, by James F. Cowger. Chapter 4, "The Evidence Print." Pages 71-109. _____ / _____
- 10.2.3 Criminalistics, by Richard Saferstein. Chapter 14, "Fingerprints." Pages 408-413. _____ / _____
- 10.2.4 Fingerprint Techniques, by Andre A. Moenssens. Chapter 4, "Latent Prints." Pages 102-106. _____ / _____
- 10.2.5 Scott's Fingerprint Mechanics, by Robert D. Olsen, Sr. Chapter 3, "Latent Fingerprints and Crime Scene Procedures." Pages 111-151. _____ / _____
- 10.2.6 Forensic Science an Introduction to

Criminalistics, by Deforest, Gaensslen,
& Lee. Chapter 2, "General Crime Scene
Procedures. Pages 416-423.

_____/_____

10.2.7 Latent Print Section AM Section 12

_____/_____

10.2.8 The Fingerprint Sourcebook by Scientific Working
Group on Friction Ridge Analysis, Study and
Technology (SWGFAST), et al. Chapter 10:
Documentation of Friction Ridge Impressions
From the Scene to the Conclusion. Available
on line from the USDOJ

_____/_____

10.2.9 SWIGFAST Standard For The Documentation of Analysis, Comparison,
Evaluation, and Verification (ACE-V) (Latent)

_____/_____

10.2.10 ASCLD/LAB Appendix A

_____/_____

10.3 Practical Exercise:

10.3.1 Locate and read the "Code of Ethics and Standards of Professional
Conduct" for latent print examiners as published by the IAI.

Trainee / Completion Date

_____/_____

10.3.2 Proper marking of evidence

Trainer / Date / P or F

_____/_____/_____

10.4 Unit Exam:

10.4.1 Module 10:
Competency Test

Supervisor / Date / P or F

_____/_____/_____

10.5 Sign Off of Module 10:

Supervisor / Completion Date

_____/_____

11 Analysis, Comparison, Evaluation, and Verification (ACE-V)

11.1 Objectives:

- 11.1.1 Understanding of scientific methodology and its application to friction ridge examination, and the ability to analyze fragmentized friction ridge detail to determine its value (comparison/identification, value/no value).
- 11.1.2 Understanding of friction ridge characteristics (dots, ridge endings, and bifurcations) the varying definitions/interpretations assigned to combinations of those three ridge characteristics, and how they may be utilized in effecting identification.
- 11.1.3 Understanding of the value of incipient ridge characteristics for use in latent print comparison/individualization.
- 11.1.4 Understanding of the importance of elimination prints and the necessity for completing "elimination" comparisons before AFIS processing of latent prints.
- 11.1.5 Ability to recognize and utilize ridge flow configurations (size, pattern, focal points, etc.), scars, creases, and other friction ridge characteristics to support latent print examination.
- 11.1.6 Ability to recognize, and if possible determine the area from which the latent fingerprints, palm prints, and foot/toe prints originated.
- 11.1.7 Understanding of the nature of color reversals (entire print) and changes (within the same print) and the ability to properly analyze these occurrences when they are encountered in latent print comparisons.
- 11.1.8 Understanding of the effects of pressure distortion, slippage, overlays, pre- and post- deposit artifacts (surface scratches, soil, brush strokes, etc.), and the ability to properly analyze such disturbances/distortion.
- 11.1.9 Understanding that different policies and standards exist regarding what constitutes friction ridge individualization in the U.S. and other countries and why no minimum "number" of matching ridge characteristics can be defined to effect an identification (i.e., positive opinion based on personal empirical experience in examining and comparing latent prints).
- 11.1.10 Ability to recognize simultaneous (cluster) impressions and an understanding of their value for identification.

- 11.1.11 Ability to analyze friction ridge details to determine the value for comparison.
- 11.1.12 Demonstrate the ability to properly conduct a comparison.
- 11.1.13 Understanding of what constitutes a valid identification and the ability to render an accurate conclusion.
- 11.1.14 Understanding of the necessity for verification by another qualified latent print examiner.
- 11.1.15 Understand the role of quality assurance measures in friction ridge examination.
- 11.1.16 Awareness of the impact(s) resulting from an erroneous conclusion.
- 11.1.17 Have an awareness of basic statistical models and the potential for their integration into the current friction ridge identification procedures

11.2 Required Reading Trainee / Completion Date

| | | |
|--------|---|----------------------|
| 11.2.1 | Quantitative-Qualitative Friction Ridge Analysis, by David R. Ashbaugh. Chapters 4 and 5, IV "The Identification Process" Pages 87-148 V "Poroscopy and Edgeoscopy" Pages 149-164. | _____/_____ _____ |
| 11.2.2 | Friction Ridge Skin, by James F. Cowger. Pages 129-206. | _____/_____ _____ |
| 11.2.3 | Finger Prints, Palms and Soles, by Harold Cummins and Charles Midlo. | _____/_____ _____ |
| 11.2.4 | Scott's Fingerprint Mechanics, by Robert D. Olsen Sr. Pages 5-46, 171-175. | _____/_____ _____ |
| 11.2.5 | Fingerprint Techniques, by Andre A. Moenssens. Pages 27-63, 86-88, 252-293, 294-301. | _____/_____ _____ |
| 11.2.6 | Advances in Fingerprint Technology, by Lee & Gaensslen. Pages 39-56. | _____/_____ _____ |

- 11.2.7 Demystifying Palm Prints
packet, by Ron Smith. _____/_____
- 11.2.8 Latent Print Section AM Section 12. _____/_____
- 11.2.9 Fingerprints and Other Ridge Skin Impressions
By, Champod, Lennard, Margot, Stoilovic
Pages 21-28. _____/_____
- 11.2.10 Paper – “Detection of Forged and
Fabricated Latent Prints” Pat A. Wertheim,
JFI Vol. 44, No. 6. 1994 _____/_____
- 11.2.11 Paper – “The Ability Equation” Pat A. Wertheim _____/_____
- 11.2.12 Paper – “Forensic Individualization of
Images Using Quality and Quantity of
Information.” John Vanderkolk, JFI,
Vol. 49. No. 3, 1999. _____/_____
- 11.2.13 Paper – “ACE-V and the Scientific Method.”
JFI Vol. 60 No.1, 2010 _____/_____
- 11.2.14 Paper – “Scientific Comparison and Identification
of Fingerprint Evidence.” Pat. Wertheim.
Fingerprint Whorld vol. 26, No. 101, July 2000. _____/_____
- 11.2.15 Paper – “Distortion Versus Dissimilarity in
Friction Skin Identification.” William Leo.
JFI, Vol. 48, No. 2, 1998. _____/_____
- 11.2.16 Paper – “A Performance Study of the
ACE-V Process: A Pilot Study to Measure
the Accuracy, Precision, Reproducibility,
Repeatability, and Biasability of Conclusions
Resulting from the ACE-V Process.” JFI, Vol.
59, No. 2, 2009. _____/_____
- 11.2.17 Paper - “Incipient Ridges and the Clarity
Spectrum” David R. Ashbaugh. JFI Vol.42.
No. 2 1992 _____/_____

11.2.18 Paper – “Level 3 Details and Their Role in Fingerprint Identification: A Survey among Practitioners.” JFI, Vol.58. No. 5, 2008. _____/_____

11.2.19 Paper – “The Etiology of ACE-V and its Proper Use: An Exploration of the Relationship Between ACE-V and the Scientific Method of Hypothesis Testing.” JFI, Vol. 56 No. 3, 2006. _____/_____

11.2.20 Paper – “Palmar Flexion Crease Identification” David R. Ashbaugh Identification Canada Jan/Feb/March 1992 _____/_____

11.2.21 Paper – “Coins in the Pocket: A Simple Explanation of Quantitative – Qualitative Friction Ridge Analysis.” JFI, Vol. 55, No. 3, 2005. _____/_____

11.3 Lecture:

11.3.1 The analyst shall complete an approved Latent Print Comparison Techniques training course. The course shall be a minimum of 40 hours.

Course Completed: _____

Date: _____

Attach copy of certificate

11.3.2 The analyst shall complete an approved Advanced Ridgeology/Complex Comparison Course training course. The course shall be a minimum of 40 hours.

Course Completed: _____

Date: _____

Attach copy of certificate

11.3.3 The analyst shall complete an approved Palm Print training course. The course shall be a minimum of 20 hours.

Course Completed: _____

Date: _____

Attach copy of certificate

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11.4 Practical Exercises
 "48 comparisons"
 Proficiency tests
 Complete 10
 Trainer

Examiner / Coach
 _____ / _____

Name of Test Date Completed
 _____ / _____

11.5 Unit Exam/Competency Tests:

11.5.1 Evaluation of Latent Prints evaluate a set of 100 latent prints as to their value
 Of value for comparison _____ / _____ / _____
 Of value for exclusion only _____ / _____ / _____
 IRD _____ / _____ / _____

11.5.2 Classify 50 latent prints into categories of origin (specific fingers if possible,
 specific areas of palm or foot print)

Supervisor / Date / P or F

11.5.3 Comparison Competency Test

_____ / _____ / _____

11.5.4 Complete at least 20 supervised comparison cases (may be adjusted by the
 Discipline leader for an experienced examiner)

_____ / _____ / _____

11.5.5 Module 11:

Competency Test

_____ / _____ / _____

11.6 Sign Off of Module 11:

Supervisor / Completion Date

_____ / _____

12 Latent Print Processing

12.1 Alternate Light Source (ALS) Detection of Latent Prints

12.1.1 Objectives:

12.1.1.1 Understanding of the personal safety hazards associated with
 Alternate Light Sources (ALS) and other non-destructive methods
 of latent print development.

- 12.1.1.2 Understanding of dye stain procedures used for post-cyanoacrylate ALS processing.
- 12.1.1.3 Understanding of chemical enhancement procedures used for post-ninhydrin ALS processing.
- 12.1.1.4 Understanding of equipment maintenance relative to ALS detection of latent prints.
- 12.1.1.5 Knowledge of luminescence, fluorescence, inherent luminescence, light wavelengths, band-pass filters, and light delivery systems as they relate to ALS detection of latent prints.

| 12.1.2. Required Reading | Trainee / Completion Date |
|---|---------------------------|
| 12.1.2.1 Friction Ridge Skin, by James F. Cowger. Pages 106-107. | _____ / _____ |
| 12.1.2.2 Scott's Fingerprint Mechanics, by Robert D. Olsen Sr., Pages 185-187, 229-231, 347-348. | _____ / _____ |
| 12.1.2.3 Advances in Fingerprint Technology, Lee & Gaensslen. Pages 135-159. | _____ / _____ |
| 12.1.2.4 An Introduction to Lasers, Forensic Lights, and Fluorescent Fingerprint Detection Techniques, by A. Roland Menzel. | _____ / _____ |
| 12.1.2.5 Latent Print Section AM Section 8.1. | _____ / _____ |
| 12.1.2.6 Criminalistics, by Richard Saferstein. Chapter 14, Pages 440-441. | _____ / _____ |
| 12.1.2.7 Applicable ALS User Manuals | _____ / _____ |
| 12.1.2.8 Krimesite Imager User's Manual/Video. | _____ / _____ |

12.1.3 Practical Exercises Trainer / Date / P or F
 Alternate Light Source Examination

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| | |
|---|-----------------------|
| Examination (ALS) | _____ / _____ / _____ |
| RUVIS Application, Examination, and Preservation | _____ / _____ / _____ |
| Inherent Luminescence Visualization | _____ / _____ / _____ |

12.2 Powder Development of Latent Prints

12.2.1 Objectives:

- 12.2.1.1 Understanding of the basic types of brushes and their composition.
- 12.2.1.2 Understanding of surfaces and environmental factors determining brush type, powder type, and color selection.
- 12.2.1.3 Understanding of the proper procedures for using different types of hair, fiberglass, and magnetic brushes.
- 12.2.1.4 Understanding of equipment maintenance and safety procedures relative to powder development of latent prints.
- 12.2.1.5 Knowledge of lifting tape, gel lifters, hinge lifters, etc.

12.2.2 Required Reading: Trainee / Completion Date

- 12.2.2.1 The Science of Fingerprinting, by FBI. Chapter 14, "Powdering and Lifting Latent Impressions." Pages 173-174 _____ / _____
- 12.2.2.2 Friction Ridge Skin, by James F. Cowger. Chapter 4, "The Evidence Print." Pages 78-85. _____ / _____
- 12.2.2.3 Advances in Fingerprint Technology, by Lee & Gaensslen. Chapter 3, "Methods of Latent Fingerprint Development." Pages 59-65. _____ / _____
- 12.2.2.4 Fingerprint Techniques, by Andre A. Moenssens. Chapter 4, "Latent Prints." Pages 106-114. _____ / _____
- 12.2.2.5 Scott's Fingerprint Mechanics, by Robert A. Olsen, Sr. Chapter 5, "Latent Finger-

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- print Powder Techniques.”
Pages 209-235 _____/_____
- 12.2.2.6 Fingerprint and the Law, by Andre A. Moenssens. Chapter 2, Page 24. _____/_____
- 12.2.2.7 Techniques of Crime Scene Investigation, 5th edition.
B. Fisher. Pages 101-104, 112, 115. _____/_____
- 12.2.2.8 Latent Print Section AM
Sections 9.3 & 9.4. _____/_____
- 12.2.2.9 Recovery of Latent Prints from Human Skin From the JFI, Vol. 55,
No. 3, 2005 _____/_____
- 12.2.2.10 Paper – “Evaluation of Fingerprint Powders.” JFI, Vol. 56, No. 2,
2006. _____/_____
- 12.2.2.11 Paper – “The Effects of Differential Cyanoacrylate Fuming Times on
the Development of Fingerprints on Skin.” JFI Vol. 59, No. 5, 2009.
_____/_____
- 12.2.3 Practical Exercises:
- 12.2.3.1 Trainer led orientation of powder processing Trainer / Date
(Standard, magnetic, Bi-chromatic, and fluorescent)
_____/_____
- 12.2.3.2 Lifting Trainer led orientation of lifting techniques
(Various tapes (clear, frosted, 3-M) Mikrosil & Accutrans,
Gel and hinge lifts, casting mediums, gel lifts, etc.)
_____/_____
- 12.2.3.3 Processing Bodies for Latent prints (mock exercise)
_____/_____
- 12.2.3.4 Latent Fingerprint Processing/Chemical Techniques 40 hrs.
_____/_____

12.3 General Chemical Development of Latent Prints

12.3.1 Objectives:

- 12.3.1.1 Understanding of safety hazards associated with each of the chemicals used for development of latent prints in the ISP FS Latent Section. Knowledge shall include proper disposal, spill procedures/equipment, and the use of personal protective equipment.
- 12.3.1.2 Understanding of latent print residue components targeted by different chemical development procedures.
- 12.3.1.3 Understanding of effects of various solvents on evidence surfaces (inks, plastics, varnishes, etc).
- 12.3.1.4 Understanding of surface and environmental factors effecting selection and sequencing of chemical development procedures.
- 12.3.1.5 Understanding of chemical storage, application and development Procedures for:
- 12.3.1.5.1 Amido Black
 - 12.3.1.5.2 DFO
 - 12.3.1.5.3 Gentian Violet/Crystal Violet
 - 12.3.1.5.4 Iodine Fuming
 - 12.3.1.5.5 Ninhydrin
 - 12.3.1.5.6 Physical Developer
 - 12.3.1.5.7 Dye Stain Solutions (Rhodamine 6G, Ardrex, RAM)
 - 12.3.1.5.8 Small Particle Reagent
 - 12.3.1.5.9 Sticky-Side Powder
 - 12.3.1.5.10 Sudan Black
 - 12.3.1.5.11 Cyanoacrylate Fuming
 - 12.3.1.5.12 Leucocrystal Violet (LCV)
- 12.3.1.6 Understanding of equipment maintenance relative to chemical development of latent prints.
- 12.3.2 Required Reading Trainee / Completion Date
- 12.3.2.1 Manual of Fingerprint Development Techniques, by Home Office Police Science Development Branch, London. _____/_____
- 12.3.2.2 The Science of Fingerprints, FBI. Chapter 15, "Chemical Development of Latent Impressions." Pages 175-186. _____/_____
- 12.3.2.3 Fingerprints and the Law, by Andre A.

Moenssens. Chapter 2, Pages 24-26. _____/_____

12.3.2.4 Fingerprint Techniques, by Andre A. Moenssens. Chapter 4. Pages 114-126. _____/_____

12.3.2.5 Techniques of Crime Scene Investigation, 5th edition, by B. Fisher. Page 124. _____/_____

12.3.3 Practical Exercises/ Competency Test Supervisor / Completion Date

12.3.3.1 Complete at least 20 supervised comparison cases (may be adjusted by the Discipline leader for an experienced examiner).

_____/_____/_____

12.4 Specific Chemical Techniques

12.4.1 Amido Black

12.4.1.1 Required Reading Trainee / Completion Date

12.4.1.1.1 Scott's Fingerprint Mechanics, by Robert D. Olsen, Sr. Chapter 7, "Techniques for Latent Prints in Blood." Pages 323-324. _____/_____

12.4.1.1.2 Advances in Fingerprint Technology, by Lee & Gaensslen. Chapter 3, "Enhancement of Bloody Fingerprints." Pages 83-87. _____/_____

12.4.1.1.3 Paper – "Summary of Experiments Investigating the Impact of Fingerprint Processing and Fingerprint Reagents on PCR-based DNA Typing Profiles." _____/_____

12.4.1.1.4 Paper – "Chemical Enhancement of Fingerprints in Blood: An Evaluation of Methods, Effects on DNA, and Assessment of Chemical Hazards." _____/_____

12.4.1.1.5 Paper – "The Effect of Common Fingerprint Detection Techniques on the DNA Typing of Fingerprints Deposited on Different Surfaces. JFI, Vol. 54, No. 1, 2004. _____/_____

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12.4.1.1.6 Paper – Presumptive Testing for Blood on a Patent Print Developed with Amido Black.” _____/_____

12.4.1.1.7 Paper – “Deposition of Bloody Friction Ridge Impressions.” JFI, Vol. 58, No. 3, 2008 _____/_____

12.4.1.1.8 Paper – “Developing Fingerprints in Blood: A Comparison of Several Chemical Techniques.” Vol. 57, No. 1, 2007 _____/_____

12.4.1.1.9 Latent Print Section AM Section 10.1. _____/_____

12.4.1.2 Practical Exercises Trainer / Date / P or F
Locate and Read MSDS-Amido Black _____/_____

Mixing of Amido Black _____/_____

Amido Black Application, Competency Examination, and Preservation _____/_____/_____

12.4.2 DFO

12.4.2.1 Required Reading Trainee / Completion Date

12.4.2.1 Paper – “The Effectiveness of 1,2-Indandione-Zinc Formulations and Comparison with HFE-Based 1, 8-diazafluoren-9-one for Fingerprint Development.” JFI Vol. 59, No. 6, 2009. _____/_____

12.4.2.2 Paper – “Spectral Variations for Reaction Products Formed Between Different Amino Acids and Latent Fingerprint Detection Reagents on a Range of Cellulose-Based Substrates. JFI, Vol. 59, No. 3, 2009. _____/_____

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12.4.2.3 Latent Print Section AM Section 10.3. _____/_____
12.4.2.4 Fingerprints and Other Ridge Skin Impressions
by, Champod, Lennard, Margot, and Stoilovic
Pages 128-131. _____/_____

Trainer / Date / P or F
12.4.2.5 Locate and Read MSDS-DFO _____/_____/_____

12.4.2.6 Mixing of Chemical _____/_____/_____

12.4.2.7 Application, Competency Examination, and
Preservation _____/_____/_____

12.4.3 Gentian Violet/Crystal Violet

12.4.3.1 Required Reading Trainee / Completion Date

12.4.3.1.1 Advances in Fingerprint Technology
by Lee, Gaensslen.
Pages 70, 86, 88-89, 154. _____/_____

12.4.3.1.2 Paper – “Development of Latent Fingerprints on Sticky
Surfaces by Dye Staining or Fluorescent Brightening.”
_____/_____

12.4.3.1.3 Latent Print Section AM Section 10.4.
_____/_____

12.4.3.1.4 Fingerprints and Other Ridge Skin Impressions
by, Champod, Lennard, Margot, and Stoilovic .
Page 160 _____/_____

Trainer / Date / P or F
12.4.3.1.5 Locate and Read MSDS-Gentian Violet
_____/_____/_____

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12.4.3.1.6 Mixing of Chemical _____/_____/_____

12.4.3.1.7 Application, Competency Examination, and Preservation
_____/_____/_____

12.4.4 Iodine Fuming

12.4.4.1 Required Reading Trainee / Completion Date

12.4.4.1.1 The Science of Fingerprints, FBI.
"Iodine Method." Pages 175-177.

_____/_____

12.4.4.1.2 Advances in Fingerprint Technology,
by Lee, Gaensslen.
Pages 60, 65-67, 89.

_____/_____

12.4.4.1.3 Scott's Fingerprint Mechanics, by
Robert D. Olsen Sr. Pages 243-256.

_____/_____

12.4.4.1.4 Friction Ridge Skin, by
James F. Cowger. Pages 93-96.

_____/_____

12.4.4.1.5 Latent Print Section AM Section 9.2.

_____/_____

Trainer / Date / P or F

12.4.4.1.6 Locate and Read MSDS-Iodine _____/_____/_____

12.4.4.1.7 Iodine chamber _____/_____/_____

12.4.4.1.8 Competency Examination and Preservation
_____/_____/_____

12.4.5 Leuco Crystal Violet

12.4.5.1 Required Reading Trainee / Completion Date

12.4.5.1.1 Paper – "Leuco Crystal Violet: A Simple, Effective Blood
Enhancement Reagent."

_____/_____

Trainer / Date / P or F

12.4.5.1.2 Locate and Read MSDS-LCV _____ / _____ / _____

12.4.5.1.3 Mixing LCV _____ / _____ / _____

12.4.5.1.4 Application, Competency Examination, and Preservation
_____ / _____

12.4.6 Ninhydrin

12.4.6.1 Required Reading Trainee / Completion Date

12.4.6.1.1 The Science of Fingerprints, by FBI
"Ninhydrin Method." Pages 177-179. _____ / _____

12.4.6.1.2 Advances in Fingerprint Technology,
by Lee & Gaensslen. "Fingerprint
Development by Ninhydrin and its
Analogues." Pages 104-127, 156. _____ / _____

12.4.6.1.3 Scott's Fingerprint Mechanics, by
Robert D. Olsen Sr. Pages 273, 276-291. _____ / _____

12.4.6.1.4 Friction Ridge Skin, by James F.
Cowger. Pages 96-98. _____ / _____

12.4.6.1.5 Paper – "Procedure to Develop Latent Prints on Thermal Paper"
_____ / _____

12.4.6.1.6 Paper – "Latent Fingerprints by a Superior Ninhydrin Method"
_____ / _____

12.4.6.1.7 Paper – "Ninhydrin Processing by Pat A. Wertheim"
_____ / _____

12.4.6.1.8 Paper - "The Effectiveness of Ninhydrin Latent Prints Verses Physical Developer Latent Prints, with Regards to Climatic Conditions at the Time of Deposition." _____/_____

12.4.6.1.9 Paper – "Improved Results in the Development of Latent Fingerprints on Thermal Paper." JFI, Vol. 58, No. 4, 2008. _____/_____

12.4.6.1.10 Paper – "Enhancement of an Insufficient Dye-Formation in the Ninhydrin Reaction by a Suitable Post Treatment Process." _____/_____

12.4.6.1.11 Paper – "Advanced Solvent-Free Application of Ninhydrin for Detection of Latent Fingerprints on Thermal paper and Other Surfaces." _____/_____

12.4.6.1.12 Paper – "Chemical Fuming: A Practical Method for Fingerprint Development on Thermal Paper." JFI, Vol. 56, No. 3, 2006. _____/_____

12.4.6.1.13 Latent Print Section AM Section 10.5. _____/_____

12.4.6.1.14 Fingerprints and Other Ridge Skin Impressions by, Champod, Lennard, Margot, and Stoilovic Pages 115-128. _____/_____

Trainer / Date / P or F

12.4.6.1.15 Locate and Read MSDS-Ninhydrin _____/_____/_____

12.4.6.1.16 Mixing of Chemical _____/_____/_____

12.4.6.1.17 Application, Competency Examination, and Preservation _____/_____/_____

12.4.7 Physical Developer

12.4.7.1 Required Reading Trainee / Completion Date

12.4.7.1.1 Chemical Formulas and Processing

| | |
|---|-------------------------|
| Guide for Developing Latent Prints, by FBI. Pages 32 - 34. | _____ / _____ |
| 12.4.7.1.2 Advances in Fingerprint Technology, by Lee, Gaensslen. Pages,79-82 | _____ / _____ |
| 12.4.7.1.3 Paper – “Physical Developer” by David Burow | _____ / _____ |
| 12.4.7.1.4 Paper – “Physical Developer: A Practical and Productive Latent Print Developer.” | _____ / _____ |
| 12.4.7.1.5 Paper – “PD, Maleic Acid and Synperonic N” | _____ / _____ |
| 12.4.7.1.6 Paper – “The Efficacy of Commercial vs. Noncommercial Physical Developer Solutions and the Sequential Enhancement of Friction Ridge Impressions Using Potassium Iodide.” JFI, Vol. 60 No. 1, 2010 | _____ / _____ |
| 12.4.7.1.7 Latent Print Section AM Section 10.6. | _____ / _____ |
| 12.4.7.1.8 Fingerprints and Other Ridge Skin Impressions by, Champod, Lennard, Margot, and Stoilovic Pages 131-133. | _____ / _____ |
| | Trainer / Date / P or F |
| 12.4.7.1.9 Locate and Read MSDS-PD | _____ / _____ / _____ |
| 12.4.7.1.10 Mixing of Chemical | _____ / _____ / _____ |
| 12.4.7.1.11 Application, Competency Examination, and Preservation | _____ / _____ / _____ |

12.4.8 Dye Stain Solutions

12.4.8.1 Required Reading Trainee / Completion Date

12.4.8.1.2 Latent Section AM Section 10.7. _____/_____

12.4.8.1.3 Fingerprints and Other Ridge Skin Impressions
by, Champod, Lennard, Margot, and Stoilovic
Pages 142-145. _____/_____

Trainer / Date / P or F

12.4.8.1.4 Locate and Read MSDS-R6g _____/_____

12.4.8.1.5 Mixing of Chemical (water base) _____/_____/_____

12.4.8.1.6 Mixing of Chemical (methanol base)
_____/_____/_____

12.4.8.1.7 Application, Competency Examination, and Preservation
_____/_____/_____

12.4.9 Small Particle Reagent

12.4.9.1 Required Reading Trainee / Completion Date

12.4.9.1.2 Advances in Fingerprint Technology 1st Edition
by Lee & Gaensslen. Pages 82-83. _____/_____

12.4.9.1.3 Paper – “Lightning Powder Co. Technical Note Small Particle
Reagent” _____/_____

12.4.9.1.4 Paper – “Small Particle Reagent” by Pat A. Wertheim
_____/_____

12.4.9.1.5 Paper – “Report of Validation Testing” Sirchie SPR-W by
Albuquerque Police _____/_____

12.4.9.1.6 Paper – “Development of Latent Prints Using Titanium Dioxide
(TiO₂) in Small Particle Reagent, White (SPR-W) on Adhesives.” JFI, Vol.
55, No. 3, 2005. _____/_____

12.4.9.1.7 Latent Print Section AM Section 9.5. _____/_____

12.4.9.1.8 Fingerprints and Other Ridge Skin Impressions
by, Champod, Lennard, Margot, and Stoilovic Pages 138, 162.

_____/_____/_____

Trainer / Date / P or F

12.4.9.1.9 Locate and Read MSDS sheets for both
Traditional and white SPR _____/_____/_____

12.4.9.1.10 Mixing of traditional SPR _____/_____/_____

12.4.9.1.11 Application, Examination, and
Preservation of traditional SPR _____/_____/_____

12.4.9.1.12 Application, Competency Examination, and
Preservation of white SPR _____/_____/_____

12.4.10 Sticky-Side Powder

12.4.10.1 Required Reading Trainee / Completion Date

12.4.10.1.1 Paper – “A New Approach to Unraveling Tangled Adhesive
Tape or Potential Detection of Latent Prints and Recovery of
Trace Evidence.” _____/_____

12.4.10.1.2 Paper – “Homemade Solution for Processing latent Prints on
the Adhesive Side of Tape.” _____/_____

12.4.10.1.3 Paper – “A Black Powder method to Process Adhesive
Tapes.” _____/_____

12.4.10.1.4 Paper – “Anomalous Results with Sticky Side Powder.”
_____/_____

12.4.10.1.5 Paper – “Adhesive Tape Separation with UN-DU.” _
_____/_____

12.4.10.1.6 Paper – “The Use of Un-du to Separate Adhesive Materials.”
JFI, Vol. 57, No. 5, 2007. _____/_____

12.4.10.1.7 Paper – “Does CA Fuming Interfere with Powder Suspension
Processing?” JFI, Vol. 59, No. 2, 2009.
_____/_____

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12.4.10.1.8 Latent Section AM Section 9.6. _____/_____

12.4.10.1.9 Fingerprints and Other Ridge Skin Impressions
by, Champod, Lennard, Margot, and Stoilovic
Pages 161-162. _____/_____

Trainer / Date / P or F

12.4.10.1.10 Locate and Read MSDS-Sticky Side Powder
_____/_____/_____

12.4.10.1.11 Mixing of Chemical _____/_____/_____

12.4.10.1.12 Application, Competency Examination and Preservation
_____/_____/_____

12.4.11 Sudan Black

12.4.11.1 Required Reading Trainee / Completion Date

12.4.11.1.1 Advances in Fingerprint Technology,
by Lee & Gaensslen, Page 37. _____/_____

12.4.11.1.2 Friction Ridge Skin, by James F. Cowger. "Locating,
Developing, Preserving, and Collecting Evidence Prints." Page 104.
_____/_____

12.4.11.1.3 Latent Section AM Section 10.8. _____/_____

Trainer / Date / P or F

12.4.11.1.4 Locate and Read MSDS-Sudan Black
_____/_____/_____

12.4.11.1.5 Mixing of Chemical _____/_____/_____

12.4.11.1.6 Application, Competency Examination, and Preservation
_____/_____/_____

12.4.12 Super-Glue (Cyanoacrylate Fuming)

12.4.12.1 Required Reading Trainee / Completion Date

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12.4.12.1.1 Advances in Fingerprint Technology
by Lee & Gaensslen. Pages 37, 67-70. _____/_____

12.4.12.1.2 Paper – “A Modified Cyanoacrylate Technique Utilizing Treated
Neutral Filter Paper for Developing Latent Fingerprints.”
_____/_____

12.4.12.1.3 Paper – “Fivis by 3M – Instructions and Notes”
_____/_____

12.4.12.1.4 Paper – “Effects of Cyanoacrylate Processing on Cocaine HCL
Trace Analysis”
_____/_____

12.4.12.1.5 Latent Section AM Sections 10.2. _____/_____

Trainer / Date / P or F

12.4.12.1.6 Locate and Read MSDS-CAE _____/_____

12.4.12.1.7 Application of CAE (Chamber method)
_____/_____/_____

12.4.12.1.8 Application of CAE (Fuming wand) _____/_____/_____

12.4.12.1.9 Application of CAE (Vacuum Chamber)
_____/_____/_____

12.4.12.1.10 Competency Examination and Preservation
_____/_____/_____

13 Other Scientific Personal Identification Methods

13.1 Objectives

13.1.1 Understanding of other than friction ridge identification (handwriting,
DNA, facial recognition, Iris Scanning, & Odontology).

13.2 Required Reading

13.2.1 Biometrics Overview

<http://www.biometrics.gov/Documents/biooverview.pdf>

13.2.2 Iris Recognition <http://www.biometrics.gov/Documents/IrisRec.pdf>

13.2.3 Face Recognition <http://www.biometrics.gov/Documents/FaceRec.pdf>

13.2.4 Vascular Pattern Recognition

<http://www.biometrics.gov/Documents/VascularPatternRec.pdf>

13.2.5 Hand Geometry

<http://www.biometrics.gov/Documents/HandGeometry.pdf>

13.2.6 Forensic Science: An introduction to Criminalistics

“Questioned Document Examination” Pages 366 – 370

13.2.7 Forensic Science Handbook Volume 1 2nd Edition

Richard Saferstein Pages 710-717

13.2.8 Techniques of Crime Scene Investigation 6th edition

Barry A.J. Fisher Pages 123 - 130

13.3 Unit Exam:

13.3.1 Competency Test

Supervisor / Date / P or F

_____/_____/_____

13.4 Sign off Module 13

Supervisor / Date / P or F

_____/_____/_____

14 Photography of Latent Prints

14.1 Objectives

14.1.1 Understanding of latent print photography to include:

14.1.1.2 Equipment and Materials

14.1.1.2.1 Different types of cameras used for latent print photography.

14.1.1.2.2 Film vs. digital

14.1.1.2.3 Filters

14.1.1.2.4 Lighting techniques

14.1.1.2.5 Use and maintenance of cameras and other photography equipment

14.1.2 Photographic Procedures

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- 14.1.2.1 Adjusting for Exposure settings including aperture and shutter speed
- 14.1.2.2 Use of lenses and knowledge of film speed.
- 14.1.2.3 Use of scales.
- 14.1.3 Photography of chemically developed latent prints of various colors.
- 14.1.4 Photography of latent prints developed with powders.
- 14.1.5 Photography of patent and plastic prints (in blood, paint, putty or wax, etc.).
- 14.1.6 Fluorescent photographic techniques
 - Use of filters
 - Use of dye stains.

14.2 Required Reading

Trainee / Completion Date

- 14.2.1 Advances in Fingerprint Technology by Lee & Gaensslen. Pages 63, 93. _____/_____
- 14.2.2 Fingerprint Techniques, by Andre A Moenssens. Pages 150-157, 143, 135, 119-120, 136. _____/_____
- 14.2.3 Scott's Fingerprint Mechanics, by Robert D. Olson Sr. Pages 369-395, 126-127, 133-135, 139-141, 141-151, 175-177, 177-182, 218-219. _____/_____
- 14.2.4 Friction Ridge Skin, by James F. Cowger. Pages 76-78, 111-128, 85-88, 90-93. _____/_____
- 14.2.5 Police Photography, by Larry S. Miller. _____/_____
- 14.2.6 Techniques of Crime Scene Investigation, 5th edition, by B. Fisher. Page 113-115. _____/_____
- 14.2.7 Latent Print Section AM Sections 6. _____/_____
- 14.2.8 Forensic Science An Introduction to Criminalistics, by DeForest, Gaensslen & Lee Appendix 3.

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Pages 426-449. _____ / _____

14.2.9 Close-up & Macro Photography For Evidence Technicians. _____ / _____

14.2.10 The Police Photographer's Guide by James A McDonald pages 4-7, 20-23, 31-34, 35-39, 54-55 and 56-58. _____ / _____

14.3 Practical Photography exercise. _____ / _____

14.3.1 Camera settings _____ / _____

14.3.2 Macro Photography _____ / _____

14.3.3 Crime scene Photography _____ / _____

14.3.4 Black and White Film Development _____ / _____

14.4 Unit Exam: Supervisor / Date / P or F

14.4.1 Module 14: Competency Test _____ / _____ / _____

14.5 Sign Off of Module 14: Supervisor / Completion Date _____ / _____

15 Digital Imaging

15.1 Objectives

15.1.1 Understanding of the capabilities and limitations of specific technologies that relate to digital imaging and storage of latent and inked prints.

15.1.2 Understanding of the proper procedures for camera capture and digital scanning of latent and inked print images.

15.1.3 Understanding of digital enhancement techniques using Adobe Photoshop or other like programs to improve the quality of latent print images.

- 15.1.3.1 Color reversal
- 15.1.3.2 Position reversal
- 15.1.3.3 Enlargements
- 15.1.3.4 Use of layers
- 15.1.3.5 Image contrast
- 15.1.3.6 Image calibration/resolution

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15.1.3.7 Use of digital filters

15.1.4 Working knowledge of the current digital imaging system.

15.2 Required Reading

Trainee / Completion Date

15.2.1 Police Photography, by Larry S. Mille Digital Cameras, Pages 132-138.

_____/_____

15.2.3 Techniques of Crime Scene Investigation,
by Barry A. J. Fisher Page 112.

_____/_____

15.2.4 Advances in Fingerprint Technology, 2nd edition
by Lee & Gaensslen. Page 267.

_____/_____

15.2.5 Criminalistics 9th edition An Introduction to Forensic Science,
by Richard Saferstein. Pages 452-454, 509-510.

_____/_____

15.2.6 FORAY User Manual
Forensic Image Tracking System
and Updates.

_____/_____

15.2.7 Latent Print Section AM Section 11

_____/_____

15.2.8 ISPFIS Latent Section Digital
Imaging Users Manual.

_____/_____

15.2.9 Review Current Adobe
Photoshop Users Manual.

_____/_____

15.2.10 Read SWGDE guidelines

_____/_____

15.2.11 Paper – “Digital Enhancement of Latent Prints using Adobe Photoshop
Black & White Adjustments.” JFI, Vol. 59, No. 4, 2009.

_____/_____

15.2.12 Paper – “Image Enhancement and Adobe Photoshop: Using
Calculations to Extract Image Detail.” JFI, Vol. 57, No. 4, 2007.

_____/_____

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15.2.13 Paper – “Techniques for Digital Enhancement of Latent Prints Obscured by Disruptive Backgrounds.” JFI, Vol. 54, No. 2, 2004.

_____/_____/_____

15.3 Lecture:

15.3.1 Latent Fingerprint Photography 40 - 80 hrs.

15.3.2 Digital Imaging Workshop 40 hrs.

15.4 Practical Exercises

15.4.1 Digital Acquisition Devices

(Flatbed scanner, negative scanner, and digital camera(s))

Supervisor / Date / P or F

_____/_____/_____

15.4.2 Digital Image Enhancement

Supervisor / Date / P or F

_____/_____/_____

15.5 Unit Exams / Competency Test:

Reviewer / Date / P or F

_____/_____/_____

15.5.1 Module 15:

Competency Test

_____/_____/_____

15.5.2 Competency test on Digital Imaging System. The analyst will independently capture, calibrate, enhance, and document _____ latent prints.

_____/_____/_____

15.6 Sign Off of Module 15:

Supervisor / Completion Date

_____/_____/_____

16 Evaluation and Comparison of Friction ridge Impressions

16.1 Objectives

16.1.1 Understand the individual friction ridge structure (e.g., continuity, texture, pore, and edge definition) for determining the existence of individualizing details

- 16.1.2 Ability to analyze friction ridge details to determine the value for comparison
- 16.1.3 Ability to recognize and utilize friction ridge flow, scars, creases, and other friction ridge details for supporting the examination
- 16.1.4 Ability to recognize and properly determine, when possible, the area from which the friction ridges originated
- 16.1.5 Knowledge of how to properly analyze friction ridge impressions and understand effects such as processing technique, color reversal, pressure distortion, slippage, and overlays
- 16.1.6 Ability to properly conduct a comparison
- 16.1.7 Ability to render a proper and accurate conclusion
- 16.1.8 Understand the practice and purpose of verification by another competent friction ridge examiner
- 16.1.9 Understand the role of quality assurance measures in friction ridge examination
- 16.1.10 Knowledge of various methods used to record known friction ridge impressions and the ability to properly evaluate ridge structure based on each method
- 16.1.11 Knowledge of alteration and mutilation of friction ridge skin
- 16.1.12 Knowledge of genetic abnormalities of friction ridge skin (e.g., dysplasia, cuspal patterns, dissociated ridges)
- 16.1.13 Knowledge of the benefits associated with obtaining elimination prints and complete friction ridge exemplars
- 16.1.14 Knowledge of simultaneous or adjacent friction ridge impressions and their value for examination
- 16.1.15 Awareness that different policies and standards exist in the United States and other countries regarding friction ridge identification (individualization)
- 16.1.16 Awareness of the impact(s) resulting from an erroneous conclusion

16.2 Required Readings

Trainee / Completion Date

- 16.2.1 Friction Ridge Skin, by James F. Cowger.

| | |
|--|-------------------|
| Pages 129-206. | _____ / _____ |
| 16.2.2 Scott's Fingerprint Mechanics, by Robert D. Olsen Sr. Pages 5-46, | _____ / _____ |
| 16.2.3 Fingerprint Techniques, by Andre A. Moenssens. Pages 27-63, 86-88, 252-293, 294-301. | _____ / _____ |
| 16.2.4 Advances in Fingerprint Technology, by Lee & Gaensslen. Pages 39-56. | _____ / _____ |
| 16.2.5 Latent Print Section AM Section 12. | _____ / _____ |
| 16.2.6 Paper- Fingerprints What They Can & Cannot Do. By Allan McRoberts "The Print" Vol. 10(6), June 1994 Pares 1-3 | _____ / _____ |
| 16.3 Practical Exercises / Competency Test. | Examiner /Trainer |
| 16.3.1 Latent print evaluation exercise. | |
| 16.3.1.1 Patterns | _____ / _____ |
| 16.3.1.2 Print orientation | _____ / _____ |
| 16.3.1.3 Difficult prints | _____ / _____ |

17 Latent Print Section Case Management and Reporting

17.1 Objectives

17.1.1 An understanding of and the ability to demonstrate proper procedures for maintaining chain of custody (documentation and physical control).

17.1.2 Understanding of and the ability to demonstrate proper procedures for case file (note taking) recording of activities. Documentation shall be such that another qualified Latent Print Examiner could evaluate what was done and replicate any comparisons.

17.1.3 Understanding of and the ability to demonstrate proper procedures for reporting latent print examination findings in an accurate, concise, and clear manner.

17.1.4 Ability to navigate and query the various databases needed for report writing and location of criminal history records.

| 17.2 Required Reading | Trainee / Completion Date |
|--|---------------------------|
| 17.2.1 Quality Manual 5.3 Accommodations and Environmental Conditions | _____/_____ |
| 17.2.2 Idaho State Police Forensic Services Quality Manual 5.8 Handling Items of Evidence | _____/_____ |
| 17.2.3 Idaho State Police Forensic Services Quality Manual 5.9.4 Technical Review & 5.9.5 Administrative Review | _____/_____ |
| 17.2.4 Idaho State Police Forensic Services Quality Manual 5.10 Reporting the Results | _____/_____ |
| 17.2.5 Latent Section AM Section 14 | _____/_____ |
| 17.2.6 The Fingerprint Sourcebook by Scientific Working Group on Friction Ridge Analysis, Study and Technology (SWGFAST), et al. Chapter 12: Quality Assurance. Available on line from the USDOJ | _____/_____ |

| 17.3 Practical Exercises: | Trainer / Date / P or F |
|---|-------------------------|
| 17.3.1 Introduction to Report Writing Drop Downs | _____/_____/_____ |
| 17.3.2 Evidence Tracking System (ETS) Orientation | _____/_____/_____ |
| 17.3.3 Writing Reports | _____/_____/_____ |
| 17.3.4 Accessing Chain of Custody | _____/_____/_____ |

17.3.5 Entering Stats

_____/_____/_____

17.4 Lecture:

Trainee / Completion Date

Basic ILETS Class

Course Name _____

Exam (P/F) Date

Course/Instructor: _____

Instructor: _____

17.4 Unit Exams / Competency Tests:

Reviewer / Date / P or F

17.4.1 Module 17:

Competency Test

_____/_____/_____

17.5 Trainee shall independently produce X3 processing case reports

Case # _____

17.6 Trainee shall independently produce 3 comparison case reports

Case # _____

18 Court Procedures, Related Laws, Expert Testimony, applicable Criminal and Civil Procedures

18.1 Objectives

18.1.1 Understand the role of expert witness testimony

18.1.2 Knowledge of factors regarding the admissibility of evidence

18.1.3 Knowledge of relevant court cases and case histories

18.1.4 Understand the rules of discovery and evidence

18.1.5 Knowledge of applicable legal challenges to admissibility

18.1.6 Understand critical challenges to the discipline

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18.1.7 An understanding of court exhibit preparation procedures to include:

18.1.8 Charting types/methods (points, area bubbles, power point)

18.1.8.1 Use of the digital imaging system to develop court charts

18.1.8.2 Print selection

18.1.8.3 Selection of individual ridge characteristics for charting

| 18.2 | Required Reading | Trainee / Completion Date |
|---------|---|---------------------------|
| 18.2.1 | Friction Ridge Skin, by James F. Cowger. Pages 207-210. | _____/_____ |
| 18.2.2 | Fingerprint Techniques, by Andre A. Moenssens. Pages 270-280. | _____/_____ |
| 18.2.3. | Advances in Fingerprint Technology, by Lee & Gaensslen. Pages 242-264. | _____/_____ |
| 18.2.4 | Fingerprints And The Law, by Andre A. Moenssens, Chapter 3-11. Pages 31-219. | _____/_____ |
| 18.2.5 | Effective Expert Witnessing, by Jack V. Matson. | _____/_____ |
| 18.2.6 | Law for the Expert Witness by Daniel A. Bronstein. (Book covers general law procedures) | _____/_____ |
| 18.2.7 | Paper "The Authority of Fingerprint Experts: Is it Based on Belief or Science?" JFI, Vol. 56, No. 6, 2009. | _____/_____ |
| 18.2.8 | Paper – "Why Experts Make Errors." Vol. 56, No. 4, 2006 | _____/_____ |
| 18.2.9 | Paper – "A Report of Latent Print Examiner Accuracy During Comparison Training Exercises." JFI, Vol. 56, No. 1, 2006. | _____/_____ |
| 18.2.10 | Paper – "Subjective- The Misused Word." William Leo. JFI Vol. 58, No. 1, 2008 | _____/_____ |

18.2.11 Paper – “Qualifying as an Expert Fingerprint Witness: Designing a Set of Questions to Assist in Court Testimony.” Pat A. Wertheim. JFI, Vol. 40, No. 2 1990. _____/_____

18.2.12. Advances in Fingerprint Technology
H. Lee & R. Gaensslen.
Chapter 10. Pages 242-259. _____/_____

18.2.13 Executive Summary Strengthening Forensic Science in the United States: A Path Forward By the Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council.
Available on line. _____/_____

18.3 Practical Exercises

18.3.1 Preparation of Court Exhibits _____/_____/_____
Trainer / Date / P or F

18.3.2 Preparation of Curriculum Vitae _____/_____/_____

18.3.3 Preparation of Qualifying Questions _____/_____/_____

18.4 Lecture: Expert Testimony _____/_____/_____

18.5 Practical Exercise:
Write a 3-5 page paper on recent court developments as they relate to fingerprints
Supervisor / Date / P or F
_____/_____/_____

18.5.1 Write one to two paragraphs for each of the following court cases outlining the arguments/decision/and impact of each on the Science of Friction Ridge Analysis.

18.5.1.1 Daubert v. Merrel Dow Pharmaceuticals _____/_____

18.5.1.2 US v. Byron Mitchell _____/_____

18.5.1.3 US v. Llera Plaza _____/_____

18.5.1.4 Mayfield v. United States _____/_____

18.5.2 Processing Moot Court _____/_____

18.5.3 Comparison Moot Court _____/_____

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18.6 Unit Exam: Supervisor / Date / P or F

18.6.1 Module 18:
Competency Test _____/_____/_____

18.7 Sign Off of Module 18: Supervisor / Completion Date
_____/_____

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19 Student Progress Record

Training Sections

Date / Initials of Reviewer

| | |
|--|---------------|
| 1 Laboratory Introduction | _____ / _____ |
| 2 Evidence Handling | _____ / _____ |
| 3 History and Background of Fingerprint Identification | _____ / _____ |
| 4 Biology and Physiology of Friction Ridge Skin | _____ / _____ |
| 5 Friction Ridge Pattern Recognition and Interpretation | _____ / _____ |
| 6 Automated Fingerprint Identification System (AFIS) | _____ / _____ |
| 7 Recording Inked Fingerprints, Palm Prints, and Footprints | _____ / _____ |
| 8 Recording Post-mortem Exemplars | _____ / _____ |
| 9 Sections and Services of a Forensic Laboratory | _____ / _____ |
| 10 Introduction to Latent Prints and Crime Scenes | _____ / _____ |
| 11 Analysis, Comparison, Evaluation, and Verification (ACE-V) | _____ / _____ |
| 12 Latent Print Processing | _____ / _____ |
| 13 Other scientific personal identification methods | _____ / _____ |
| 14 Photography of Latent Prints | _____ / _____ |
| 15 Digital Imaging | _____ / _____ |
| 16 Evaluation and Comparison of Friction ridge Impressions | _____ / _____ |
| 17 Latent Print Section Case Management and Reporting | _____ / _____ |
| 18 Court Procedures, Related Laws, Expert Testimony, applicable Criminal and Civil Procedures | _____ / _____ |

Appendix A Recommended Reading for Latent Examiners

Journal of Forensic Identification
by The International Association for
Identification

Advances in Fingerprint Technology 2nd
Edition by Henry C. Lee & R. E.
Gaensslen

Quantitative - Qualitative Friction Ridge
Analysis, An Introduction to Basic and
Advanced Ridgeology by David
Ashbaugh

Fingerprint Techniques
by Andre A. Moenssens

Fingerprints and the Law
by Andre A. Moenssens

Scott's Fingerprint Mechanics
by Robert D. Olsen, Sr.

An Introduction to Lasers, Forensic
Lights and Fluorescent Fingerprint
Detection Techniques
by Dr. E. Roland Menzel

Fingerprint, Palms and Soles
by Harold Cummins and Charles Midlo

Fingerprints and Other Ridge Skin
Impressions
By Christophe Champod et. Al

Criminalistics, An Introduction to
Forensic Science 9th edition
by Richard Saferstein

Techniques of Crime Scene
Investigation 5th edition
by Berry A. J. Fisher

Criminal Investigation
Basic Perspectives
by Paul B. Weston & Kenneth M. Wells

Effective Expert Witnessing
by Jack V. Matson

Law for the Expert Witness
Daniel A. Bronstein

Forensic Image Tracking System
Digital Workplace User Manual

Manual of Fingerprint Development
Techniques
Police Science Development Branch
Home Office, UK

Safety Guidelines
International Association for
Identification

The Science of Fingerprints
by the FBI

Safety For the Forensic Identification
Specialist 2nd Edition
Nancy E. Masters

Appendix B Additional Recommended Training Courses for Latent Examiners

1. Fingerprint Classification
40 hrs.
2. Homicide Investigation Techniques Course
40 hrs.
2. Clan-Lab Certification Course
40 hrs.
3. P.O.S.T. Instructor Development Course
32 hrs.
5. International Association for Identification Annual Education
Conferences 40 hrs.
7. Pacific Northwest Division of IAI meetings and training conferences
24 hrs.

All class hours are approximated.

Appendix C Professional Associations and Certifications

Recommended professional association
International Association for Identification
Pacific Northwest Division International Association for Identification

Professional Certification is required after completion of the ISP FS Latent
Section training program and two years of work experience.

International Association for Identification Latent Print Certification
(CLPE).

Recommend Optional Certifications

- | | |
|---|-------------------|
| a. Certified Crime Scene Investigator, (CCSI) | Level I |
| b. Certified Crime Scene Analyst, (CCSA) | Level II |
| c. Certified Senior Crime Scene Analyst (CSCSA) | Level III |
| d. American Board of Criminalistics Fellow) | (Diplomate and/or |