Idaho State Police Forensic Services General Training

Introduction to General Training module.
The general training module was developed to ensure all of the staff in forensic services was provided consistent training, and demonstrated knowledge of critical concepts in core areas. Specific section and discipline training plans may require additional training in some of the areas.

Table of contents

1.0 Laboratory Introduction

Objectives:

- Orientation to the Idaho State Police Forensic Services (ISPFS).
- Understanding of the organization structure, chain of command, and policies/procedures for FS.
- Understanding of laboratory security and the need for confidentiality.
- Understanding of the quality assurance/quality control guidelines for FS.
- Understanding of the safety guidelines for FS.
- Understanding of the professional duties, moral obligations, and code of ethics for forensic employees.

ISP forensic lab tour (duty lab)

_____/ _____ _____
Trainee Trainer Date of completion

ISP facilities tour, (overview for remote labs)

_____/ _____ _____
Trainee Trainer Date of completion

Trainer will demonstrate how to access documents on the I:drive, in ILIMS, how to access e-mail and review e-mail retention policy, and use of M/P drive for scanning and saving documents.

_____/ _____ _____
Trainee Trainer Date of completion

Training Exercises

Read Idaho State Police Employee Handbook. (Prior to signing off trainer will provide guidance on any questions the trainee has about the handbook)

_____/ _____ _____
Trainee Trainer Date of completion

Read Idaho State Police Forensic Services (FS) Quality /Procedure Manual and successfully complete Quality/Procedure manual exam.

Successful completion of this exam will be documented by an e-mail from the Quality Manager a copy of that e-mail will be kept with this checklist.

_____
Date of completion

Read FS Health and Safety Manual and successfully complete safety manual exam.

Successful completion of this exam will be documented by an e-mail from the Quality Manager a copy of that e-mail will be kept with this checklist.

_____
Date of completion

Meet with lab safety officer, the lab safety officer will give a tour of the lab and review the location of safety equipment, evacuation and lock down procedures, and make sure the trainee has access to the appropriate personal protective equipment.

_____/ _____ _____

Trainee Safety officer Date of completion

Consultation with health and safety officer (or lab manager) on Tetanus/Hep vaccination completion of declination.

_____/ _____ _____
Trainee Trainer Date of completion

Bloodborne pathogen training

_____/ _____ _____
Trainee Trainer Date of completion

Chemical hygiene training

_____/ _____ _____
Trainee Trainer Date of completion

Safe handling of firearms overview (lab manager will assign the trainer for this item)

_____/ _____ _____
Trainee Trainer Date of completion

Read Criminalistics, R. Saferstein, Chapter 1

_____ _____
Trainee Date of completion

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 course must be approved by the Major/Manager.

_____
Date of completion Attach a copy of certificate

Lab Manager or Supervisor will review the ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Scientists with the trainee.

_____/ _____ _____
Trainee Lab Manager/Supervisor Date of completion

The trainee will meet with their supervisor and discuss what types of case contacts require documentation, and how to document and store that information.

_____/ _____ _____

Trainee Supervisor Date of completion

2.0 Evidence Handling

Background Information and Theory

Maintaining evidence integrity is imperative for every forensic science discipline. Several steps should be taken to accomplish this goal. The chain of custody must be maintained from the time of collection until presentation in the courtroom, meaning everyone who handles the evidence must sign for it and record what they did with it. Secure packaging is essential to restrict access to the item and it must not be left unattended to prevent tampering or theft. Evidence must be properly stored, which may involve refrigeration and protection from moisture, to prevent deterioration. Documented procedures must also be followed to minimize loss, contamination and/or deleterious change. It is also necessary to understand other evidentiary requests and needs. All of the examinations, analyses conducted, and samples collected must be properly documented.

All evidence submitted to the laboratory is entered into an evidence tracking or laboratory information system. The system is a computer program used to assign unique laboratory case and item numbers for all submitted evidence. Each item has a corresponding barcode placed on the outer packaging as an identifier, which allows tracking of its movement while in the lab. The system also allows for the maintenance of case information, including items submitted, analyses requested, reports, and status.

Training Exercises

Secure a login to ILIMS and set a unique password. Enter electronic signature and initials. Read the ILIMS users manual.

_____ _____

Trainee Date of completion

Read section 5.8 of the Quality Policy Procedure Manual.

_____ _____

Trainee Date of completion

Attend evidence packaging class or go through evidence power point with a trainer

_____/_____ _____

Trainee Trainer Date of completion

Work with a forensic evidence specialist; the evidence specialist will explain:

- All the ways evidence is received
- The process for accepting evidence
- The process for forwarding evidence without analysis
- The process for rejecting evidence

- How a seal may be remediated and how that is documented
- The evidence specialist will take the analyst into the vault and show them the storage locations and explain clearly who has access to the vault and how vault entries are monitored when others enter the vault.
- The evidence specialist will explain how evidence is returned to the submitting agency after analysis and what types of evidence are retained or destroyed by the lab system.
- The trainee will observe five cases being logged into the electronic evidence tracking system.

_____/ _____ _____
Trainee Trainer Date of completion

Chain of custody
The trainer will demonstrate and explain how both the internal and external chain of custody is documented. (Chains will be reviewed for two types of evidence: one that has the external chain attached to the evidence and one that uses a tox/alcohol submittal form)
The trainer will explain exactly what it means to sign the chain of custody and explain the importance of making sure when evidence is transferred to the next person that the chain is completed and correct.

_____/ _____ _____
Trainee Trainer Date of completion

The trainee will go through the evidence check out process, storage process, evidence marking, evidence resealing, and evidence return to the FES with two different analysts from two different disciplines.

_____/ _____ _____
Trainee Trainer Date of completion

_____/ _____ _____
Trainee Trainer Date of completion

The trainer will review the policy and procedure for re-examination of evidence with the trainee
_____/ _____ _____
Trainee Trainer Date of completion

The trainee will provide to the trainer a written response to the following questions. Once the trainee has provided the correct response to all the questions, this activity will be signed off. The answers to the questions will not be retained as part of the training file and will be returned to the trainee.

1. Who has access to the evidence vault in your lab?
2. Is there ever any evidence stored in the vault that is not sealed?
3. Where on the chain of custody does it show who initially received the evidence in the lab?
4. Are there any special storage conditions for normal controlled substance cases?
5. What are the types of evidence that are retained by the lab?
6. What types of evidence are destroyed by the lab?
7. If a sample came into the lab system and something was leaking from the container, what are two ways this might be handled?
8. Do factory seams on envelopes require initials to be considered sealed?
9. What does evidence tape do or provide that regular tape might not?
10. Are there any special storage conditions for biology evidence? What if there is also a request for latent prints?
11. When evidence is returned to an agency by courier, what if any proof of delivery is retained, and where is that found?
12. When an analyst has possession of evidence for analysis, how is that evidence stored when they are not working on it? (Pick two disciplines and explain how it is stored or secured and who has access to that storage area)

_____/ _____ _____
Trainee Trainer Date of completion

Overview of samples that come into the lab but are not handled as evidence.
This section gives an informational overview of samples that are not treated as evidence that may be received by the lab; specific training and instructions for handling these samples will occur in the appropriate discipline training plan.

Offender Samples

In 1996 Idaho passed a law (§19-5501 – §19-5518) which authorized the creation of a database for the retention of DNA profiles of offenders convicted of specific crimes. ISP Forensic Services began collecting those samples in 2000.
The offender samples are collected, normally by corrections officers or law enforcement personnel, as a buccal swab transferred to FTA paper. The sample is stable for several years at room temperature because the paper contains chemical substances which protect DNA from degradation by enzymes and bacterial growth.
Offender samples received into the laboratory for entry into the DNA database are not treated as evidence. The received date is documented on each sample and the corresponding information is entered into the computer system A software program is used to manage offender samples and court orders, including but not limited to the following: identification of duplicates, generation of unique identification numbers, storage of offender details (identifying information and offense), thumbprint/state ID verification for flagging of criminal histories, and tracking the progress of

sample processing/testing. To prevent tampering or theft, the samples must not be left unattended or unsecured.

3.0 General court procedure training

Training Exercises (In addition to the training exercises below it is recommended that the trainee attend a court room testimony training class when available)

Required reading

☐ Forensic Science Handbook, Vol.I, Second Edition, Chapter 1: Legal Aspects of Forensic Science, pp.4-39, Prentice-Hall, 1982.

☐ Forensic Science Handbook, Vol.III, Chapter 1: Legal Standards for Admissibility of Novel Scientific Evidence, pp.1-23, Regents/Prentice-Hall, 1993.

☐ Admissibility Packet: Frye Standard, Federal Rules of Evidence, Kelly Three-Prong Test, Daubert Standard, Idaho Rules of Evidence.

_____ _____
Trainee Date of completion

Subpoenas

The trainee will provide a written response to the following questions. Once the trainee has provided the correct response to all the questions this activity can be signed off. The answers to the questions will not be retained as part of the training file and will be returned to the trainee.

1) Describe the subpoena process.
2) What is the purpose of a subpoena?
3) What do the words "duces tecum" mean when added to the subpoena?

_____/ _____ _____
Trainee Trainer Date of completion

With a trainer, review the procedure in the quality manual for subpoenas and review how subpoenas are handled in your lab. The review will cover:

1) How subpoenas are received and organized
2) Who is ultimately responsible for notifying the agency if the witness has a conflict at that time?
3) How to handle a subpoena from a private attorney.
4) How are Public Records Requests handled?

_____/ _____ _____
Trainee Trainer Date of completion

Required reading (only for staff that provides analysis)

- ☐ Becker, Ronald F., Scientific Evidence and Expert Testimony Handbook: A Guide for Lawyers, Criminal Investigators and Forensic Specialists, Charles C. Thomas Publishers, Limited, 1997.
- ☐ Matson, Jack V., Effective Expert Witnessing, 3rd Edition, Lewis Publishers/CRC Press, 1998.
- ☐ Peterson, Joseph L. Symposium: Ethical Conflicts in the Forensic Sciences, Introduction. Journal of Forensic Sciences, May 1989; 34(3):717-718.
- ☐ Lucas, Douglas M. Symposium: Ethical Conflicts in the Forensic Sciences, The Ethical Responsibilities of the Forensic Scientist: Exploring the Limits. Journal of Forensic Sciences, May 1989; 34(3):719-729.
- ☐ Giannelli, Paul, C. Symposium: Ethical Conflicts in the Forensic Sciences, Evidentiary and Procedural Rules Governing Expert Testimony. Journal of Forensic Sciences, May 1989; 34(3):730-748.
- ☐ Peterson, Joseph L. and Murdock, John E. Symposium: Ethical Conflicts in the Forensic Sciences, Forensic Science Ethics: Developing an Integrated System of Support and Enforcement. Journal of Forensic Sciences, May 1989; 34(3):749-762.
- ☐ Frankel, Mark S. Symposium: Ethical Conflicts in the Forensic Sciences, Ethics and the Forensic Sciences: Professional Autonomy in the Criminal Justice System. Journal of Forensic Sciences, May 1989; 34(3):763-771.
- ☐ Saks, Michael J. Symposium: Ethical Conflicts in the Forensic Sciences, Prevalence and Impact of Ethical Problems in Forensic Science. Journal of Forensic Sciences, May 1989; 34(3):772-793.
- ☐ Sognnaes, Reidar F. Symposium: Effective Expert Testimony, Introduction. Journal of Forensic Sciences, April 1983; 28(2):516-522.
- ☐ Miller, Thomas H. Symposium: Effective Expert Testimony, Nonverbal Communication in Expert Testimony. Journal of Forensic Sciences, April 1983; 28(2):523-527.
- ☐ Rosenthal, Paul Symposium: Effective Expert Testimony, Nature of Jury Response to the Expert Witness. Journal of Forensic Sciences, April 1983; 28(2):528-531.
- ☐ Sereno, Kenneth K. Symposium: Effective Expert Testimony, Source Credibility. Journal of Forensic Sciences, April 1983; 28(2):532-536.
- ☐ Koehler, J.J. Error and Exaggeration in the Presentation of DNA Evidence at Trial. Jurimetrics Journal, 1993; 34:21-39.
- ☐ Nordby, Jon J., Can We Believe What we See, if we See is What we Believe?-Expert Disagreement. Journal of Forensic Sciences, July 1992; 37(4):1115-1124.
- ☐ Saks, M.J.; Koehler, J.J. The Coming Paradigm Shift in Forensic Identification Science. Science, August 2005; 309:892-895
- ☐ Slap, Albert J. and Fessenden, Marti. Are Forensic Experts an 36(3):714-721.
- ☐ STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES A PATH FORWARD, summary pg 1-34, The National Academies Press, Washington DC, 2009

http://www.nap.edu/catalog.php?record_id=12589

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Trainee Date of completion

4.0 General Overview of Forensic Science Disciplines

Latent Impression Evidence
Read Criminalistics, Richard Saferstein, Chapter 14 “Fingerprints”.

_____ _____
Trainee Date of completion

Impression Evidence
Read Criminalistics, Richard Saferstein, Chapter 3 “Physical Evidence”

_____ _____
Trainee Date of completion
Read Impression Evidence, Barry A.J. Fisher, Chapter 9 “Impression Evidence”

_____ _____
Trainee Date of completion

Contact an analyst from the impression evidence section and interview them, ask at least 5 questions (sample questions are attached as an appendix)

_____ _____
Trainee Date of completion

Firearms/Toolmarks
Read Criminalistics, Richard Saferstein, Chapter 15 “Firearms, Tool Marks”

_____ _____
Trainee Date of completion

Contact an analyst from the firearms section and interview them, ask at least 5 questions. (sample questions are attached as an appendix)

_____ _____
Trainee Date of completion

Computer Forensics/Digital Evidence
Read Criminalistics, Richard Saferstein, Chapter 17 “Computer Forensics”

_____ _____
Trainee Date of completion

Controlled Substances
Read Criminalistics, Richard Saferstein, Chapter 9 “Drugs”

_____ _____
Trainee Date of completion

Fire Debris
Read Criminalistics, Richard Saferstein, Chapter 11 “Aspects of Arson and Explosion Investigations”

_____ _____
Trainee Date of completion

Contact an analyst from the chemistry section and interview them, ask at least 5 questions. (sample questions are attached as an appendix)

_____ _____
Trainee Date of completion

Biology
Review Biology and DNA PowerPoint

_____ _____
Trainee Date of completion

Contact an analyst from the biology section and interview them, ask at least 5 questions. (sample questions are attached as an appendix)

_____ _____
Trainee Date of completion

Trace
Read Criminalistics, Richard Saferstein, Chapter 8 “Hairs, Fibers, and Paint”

_____ _____
Trainee Date of completion

Read Forensic Science: An Introduction to Criminalistics, De Forest Et. Al. Chapter 6 “Transfer and Trace Evidence”

_____ _____

Trainee Date of completion

Forensic Toxicology

Forensic Toxicology is a complex discipline, formed by three sub-disciplines: Human Performance Toxicology, Postmortem Toxicology and Workplace Drug Testing. Some of the questions forensic toxicology strives to answer are:

- What is the substance?
- What is it used for?
- How do we isolate it from the matrix (blood, urine, etc)?
- What kind of effect can it have?
- How do we interpret the results?
- Did it contribute to death?
- Did it impair performance?

ISP Forensic Services offers analysis options for drug analysis in blood and urine for the first two sub-disciplines of forensic toxicology. We do not perform workplace drug testing, but do perform analysis for Probation Violation. This testing has some similar considerations to workplace drug testing, such as not being overly concerned with valid prescription medications. However, we are not currently able to make evaluations on whether a drug present is at a therapeutic (prescribed) or abuse concentration. We are only able to determine the presence of drugs, not the quantity (except ethanol) of those drugs. Workplace drug testing generally has different cutoffs for the detection of drugs that what ISP Forensic Services currently offers. The cutoffs for opiates, for example, are much higher in cases of workplace drug testing. Under the Substance Abuse and Mental Health Services Administration (SAMHSA) guidelines for workplace drug testing, 2000 ng/mL is the screening cutoff for opiates. ISP Forensic Services employs 50 ng/mL (blood) and 300 ng/mL (urine) screening cutoffs.

We also offer volatiles analysis in blood, urine, vitreous humor and unknown solutions, as well as calibration services in breath testing. ISP Forensic Services provides blood and urine collection kits to agencies upon request, and sexual assault kits are provided to hospitals upon request. Often, requests to test the blood from the tube in a sexual assault kit are received. This can present a challenge because the volume of sample in that tube is so limited. If asked, let agencies know that it is preferable to use the blood tubes from the blood collection kits to collect samples for toxicology testing. Blood is stored under refrigeration, and urine is stored frozen (except during analysis). Once testing is completed, all samples are returned to the submitting agency.

ISP Forensic Services ensures each of the personnel in the disciplines offered is highly trained in not only the analysis and interpretation of results, but also in courtroom testimony. The ultimate goal for this is clear, concise, unbiased explanations to laypersons, leading to a proper understanding by the courts of the capabilities and limitations in the disciplines.

The trainee working in a specialty other than the toxicology and alcohol disciplines should become familiar with common capabilities and limitations of alcohol and drug disciplines; the reference below gives an excellent overview of alcohol and drug testing, as well as many of the considerations required to successfully interpret results.

Read Criminalistics, Richard Saferstein, Chapter 10 “Forensic Toxicology”

_____ _____

Trainee Date of completion

Contact an analyst from the toxicology section and interview them, ask at least 5 questions. (sample questions are attached as an appendix)

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Trainee Date of completion

Computer Forensics

While forensic services does not have a computer forensics discipline, ISP does. If you receive a call or have a question about the services ISP offers in this area you can reach the Cybercrime unit at 208-884-7103.

5.0 General Overview of Laboratory Accreditation and Analyst Certification

Accreditation

Accreditation provides that essential, external, independent review. Accreditation increases confidence for customers and all interested parties in the work and work product of the laboratory. http://www.ascld-lab.org/

Idaho State Police Forensic Services (ISPFS) is an accredited laboratory system. Accreditation was first acquired by ISPFS in 1987 by ASCLD/LAB under the Legacy program.

ASCLD/LAB moved toward a more rigorous and strict ISO program. This program is based on ISO/IEC 17025 and the ASCLD/LAB International Supplemental Requirements. The supplemental requirements can be found at I:\International Management System\ASCLD-LAB Int Docs. ASCLD/LAB bylaws state their purpose : to improve the quality of laboratory services provided to the criminal justice system; to offer to the general public and to users of laboratory services a means of identifying those crime laboratory facilities which satisfy accreditation criteria; to develop and maintain criteria which can be used by a laboratory to assess its level of performance and strengthen its operation; and to provide an independent, impartial and objective system by which laboratory facilities can benefit from a total organizational review. http://www.ascld-lab.org/bylaws/

ISPFS was among the first 50 Forensics labs to become accredited under this program in 2007. In order to maintain that accreditation labs must undergo a full assessment of the lab system every 5 years, an accreditation cycle. A yearly surveillance audit is conducted and may include 2 or more of the 3 labs. ISPFS Quality/Procedure manual is ISO/IEC 17025:2005 compliant. All requirements of the program must be met to be compliant.

The trainee will provide a written response to the following questions. Once the trainee has provided the correct response to all the questions this activity can be signed off. The answers to the questions will not be retained as part of the training file and will be returned to the trainee.

1. Can you state the importance of being ASCLD/LAB ISO/IEC 17025:2005 International certified?
2. What does the acronym ISO mean?
3. Where could you find the 17025:2005 document or forensic supplemental?
4. When does ISPFS undergo the next 5 year accreditation assessment?
5. Under what section of the supplemental requirements does it state: Examination documentation shall be of a permanent nature.
6. Can ISPFS policies and procedures be less strict than those of ISO/IEC 17025:2005? More strict?
7. Where can the ASCLD/LAB Guiding Principles of Professional Responsibility be found? What is the requirement for reviewing the Guiding Principles?
8. The trainer will assign the trainee two criteria to audit in their lab one from the 17025:2005 document and one from the ASCLD/Lab supplement. The trainee should be able to reference the laboratory policies and procedures for those criteria and outline how the different areas of the lab demonstrated or failed to demonstrate compliance.

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Trainee Trainer Date of completion

CERTIFICATION

Certification , like accreditation, gives confidence to your customer that you are competent and knowledgeable in your field.

It is required by ISPFS that once a scientist has achieved FS II that they obtain certification. The analyst may elect to sit for the ABC criminalistics, ABC specialty (e.g., drug analysis, fire debris, molecular biology, etc.), or other recognized certification examination for the discipline in which they work. (e.g., ABFT, FTCB, IAI, etc.)

A Forensic Scientist III or IV must obtain specialty certification in the discipline they are leading, ABC-Fellow, or equivalent status (e.g., ABFT, FTCB, IAI, etc.).

As with ASCLD/LAB there are recertification requirements that must be met to maintain certification. Your employee development plan that is done on a yearly basis should include the training you need so your supervisor is aware of the importance and purpose of the continued training so it can be planned in the training budgets.

ISPFS will provide the training necessary for recertification but whose responsibility is it to keep track of the recertification requirements and what training is needed?

The trainee will provide a written response to the following questions to the trainer. Once the trainee has provided the correct response to all the questions, this activity can be signed off. The answers to the questions will not be retained as part of the training file, and will be returned to the trainee.

1. There are at least two places in the ISPFS Quality Manual that addresses certification in section 4 and 5, please list the exact requirement number and summarize the requirement.
2. Is it an ISO/IEC 17025:2005 requirement to be certified?
3. How long do you have to take the certification exams as a FS II and FSIII/FSIV?

_____/ _____ _____

Trainee Trainer Date of completion

HISTORY

Revision No.	Issue Date	Revision/Comments
0	06/12/2014	Original Issue

Appendix

Sample questions for general forensic overview interviews.

What do you feel is the biggest misconception the public has about the testing you do?

What do you feel is the biggest misconception the criminal justice community has about the testing you do?

Are the results of the testing you do always conclusive, can you give an example of when you might have an inconclusive result?

Does the evidence you process have a potential to deteriorate or change? If so in what ways and what is done to prevent that?

Is there a potential for cross contamination in the type of testing you do? If so what measures do you take to prevent it.

What is an ethical dilemma you have had to face when performing analysis?

What is the most common packaging or collection problem you see in your discipline?

What are some of the potential safety hazards associated with the evidence you handle in _____ analysis?

What are some of the legal challenges that have been brought up recently in your discipline?