

Idaho State Police Forensic Services Core Training



Introduction to Core Training module.

The core 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.

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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

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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 (found in the ISP Handbook), and use of M/P drive for scanning and saving documents.

_____/_____
Trainee Trainer 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

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 the exam will be evaluated and documented below by a supervisor, lab manager, or the lab improvement manager (quality manager) or the deputy quality manager.

Manager Date of completion

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

Successful completion of the exam will be evaluated and documented below by lab safety officer, supervisor, lab manager, or the lab improvement manager (quality manager) or the deputy quality manager.

Manager Date of completion

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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. Course must be approved by the Laboratory System Director.

Date of completion Attach a copy of certificate

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Lab Manager or Supervisor will review the Idaho State Police Forensic Services Code of Ethics with the trainee.

_____/_____
Trainee Lab Manager/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. Read the ILIMS users manual.
Enter electronic signature and initials (instructions can be found in the ILIMS users manual).

_____/_____
Trainee Date of completion

Read section 7.4 of the Quality Policy Procedure Manual.

_____/_____
Trainee Date of completion

Attend evidence packaging class or review the evidence power point. Address any questions from the class or power point with a trainer

_____/_____
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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.

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 their laboratory's practice 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

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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.

NIBIN

In 1999, the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) established the National Integrated Ballistic Information Network (NIBIN) to provide federal, state, and local partner agencies with an automated ballistic imaging system. Integrated Ballistic Identification Systems (IBIS) technology takes digital images of cartridge cases from crime scenes or a crime gun test fires. Within hours, IBIS compares those images against previous NIBIN entries. If a high-confidence candidate emerges, firearms examiners can compare the original physical evidence microscopically to confirm the match. This is a NIBIN “lead,” or the linking of two (or more) different investigations.

Cartridge cases or firearms submitted as evidence will be documented and handled per the ISPFs Quality Manual.

Test fire cartridge cases created by the submitting agency exclusively for IBIS entry, will be designated as exemplars, and may be submitted to any ISPFs lab and forwarded, as appropriate, for entry. These cartridge cases may be entered into IBIS by any authorized NIBIN/IBIS operator. IBIS exemplars will be discarded after entry.

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.
- Brady/Giglio and Officer Ingetrity

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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?

_____/_____
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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?

_____/_____
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Required reading (only for staff that provides analysis)

- Miller, Thomas H. Symposium: Effective Expert Testimony, Nonverbal Communication in Expert Testimony. *Journal of Forensic Sciences*, April 1983; 28(2):523-527.
- 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.
- The analyst will choose one of these three:
 - Law 101: Legal Guide for the Forensic Expert
 - Feder, Harold A. *Succeeding As An Expert Witness*, any edition, Tague Press
 - Matson, Jack V., *Effective Expert Witnessing*, 3rd Edition, Lewis Publishers/CRC Press, 1998.
- PRESENTATION OF EXPERT TESTIMONY POLICY RECOMMENDATIONS,
NATIONAL COMMISSION ON FORENSIC SCIENCE
- Testimony Using the Term “Reasonable Scientific Certainty”

- STRENGTHENING FORENSIC SCIENCE IN THE UNITED STATES A PATH FORWARD,
summary pg 1-34, The National Academies Press, Washington DC, 2009

Trainee

Date of completion

4.0 General Overview of Forensic Science Disciplines

Analyst to complete all sections excluding the discipline in which they are training.

Latent Impression Evidence

Read Criminalistics, Richard Saferstein, Chapter 14 “Fingerprints”.

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Date of completion

Impression Evidence

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

Trainee

Date of completion

Techniques of Crime Scene Investigation, 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”

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

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Computer Forensics/Digital Evidence

Read Criminalistics, Richard Saferstein, Chapter 17 “Computer Forensics”

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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.

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 for fire debris and controlled substances. (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

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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 for drugs 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.

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. 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.

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

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Date of completion

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

Trainee

Date of completion

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. 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 was based on ISO/IEC 17025 and the ASCLD/LAB International Supplemental Requirements. ISPFS was among the first 50 Forensics labs to become accredited under this program in 2007. In 2017, ISPFS switched accrediting bodies from ASCLD/LAB to A2LA. In order to maintain that accreditation labs must undergo a full assessment of the lab system every 4 years, an accreditation cycle. A yearly surveillance audit is conducted. ISPFS Quality/Procedure manual is ISO/IEC 17025 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 ISO/IEC 17025 certified?
2. What does the acronym ISO mean?
3. Where could you find the current 17025 document and A2LA-R221 and A2LA-C258?
4. When does ISPFS undergo the next 4-year accreditation assessment?
5. Under what section of the supplemental A2LA-C258 requirements does it state: Each page of the case record shall be traceable to the analyst and where appropriate to a uniquely identified case or exhibit.
6. Can ISPFS policies and procedures be less strict than those of ISO/IEC 17025? More strict?
7. Where can the State Police Forensic Services Code of Ethics be found? What is the requirement for reviewing the code of ethics?
8. The trainer will assign the trainee two criteria to audit in their lab one from the 17025 document and one from the A2LA-C258 checklist. 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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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. Analysts are required to obtain approved certification, in at least the primary discipline they are approved to perform testing. The primary discipline will be designated by the lab manager for individuals that perform testing in more than one section.

A Forensic Scientist III or IV who assume discipline lead responsibilities must already hold approved certification in the discipline in which he/she is the technical lead , or such status must be obtained within one year.

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. It is the analyst’s responsibility 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. The ISPFS Quality Manual addresses certification, please list the exact requirement numbers and summarize the requirement.
2. Is it an ISO/IEC 17025: requirement to be certified? Is it an A2LA-R221 and A2LA-C258 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

REVISION HISTORY

Revision #	Description of Changes
1	Initial revision issued in Qualtrax

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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?