

Department of Forensic Sciences
Forensic Science Laboratory Division

**Digital Evidence Unit
Training Manual**

Digital Evidence Unit Training Manual

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0.1 Training Goals and Objectives

Overview of the Training Manual

The purpose of this manual is to provide a format for training new employees in the Forensic Science Laboratory Division (FSL), Digital Evidence Unit (DEU) of the District of Columbia, Department of Forensic Sciences (DFS). The training outline provides guidance for training on specific topics of competence for Digital Evidence Trainees. The complete training program involves both traditional instruction (e.g. modules, readings, etc.), e-learning as well as working with qualified digital evidence team members. These qualified scientists will act as designated trainers under the direction of the FSL Training Coordinator, DEU Lead Forensic Scientist and/or the Deputy Director.

Format of the Training Program

The DEU Training Program incorporates the Scientific Working Group on Digital Evidence (SWGDE) Training Guidelines addressing each of the following: laboratory introduction, fundamental digital evidence knowledge, applied digital evidence knowledge, digital evidence analysis, reports and notification, legal issues and final evaluation. These requirements are designed to ensure that DEU's forensic scientists have the training, education and proficiency commensurate with their duties.

The DEU Training Program, in its entirety, is designed for the forensic scientist who has minimal background or experience in the subject matter. The training program is divided into modules. Each module contains required readings, practical exercises and study questions, in addition to other duties as assigned. The topics covered in the training program should impart a fundamental understanding of the work that a digital evidence examiner is expected to understand and perform in the position. The DEU Training Program is intended to be used as a *guide* for training and is not a rigid, inflexible program. Many of the modules do not have to be completed in the sequence or order in which they are presented, and may be modified depending on the needs of the DEU, DFS, trainer(s), and/or facility availability. The training program may consist of in-service training, training from external agencies, vendors, or a combination.

It is estimated that this training program can be completed, in its entirety, in approximately (6) months; however, the program may take more or less time to complete depending on the progress of the employee and the circumstances in the DEU. Satisfactory understanding of the information learned in the modules may be demonstrated through written examinations, oral presentations, practical examinations and/or exercises. The format of the training program is designed to provide:

- self-paced modules to allow for schedule flexibility,
- reduced time from training inception to casework production,
- consistent quality of training
- documentation and tracking of training for quality purposes

It is paramount that that the Digital Evidence Unit Analyst trainee understands that the ultimate objective of this training is:

- To independently and competently acquire digital evidence to include mobile devices, computers including laptops and desktops, vehicle infotainment systems and any other device capable of holding digital data.
- To independently and competently examine digital evidence.
- To independently and competently document and report of the acquisition and the examination of digital evidence.
- To testify about the acquisition, examination, documentation and reports in a manner that is clear and understandable in an impartial manner

Individual Training Plans (ITPs)

Each trainee will have his/her previous training, experience, education, published articles, and other credentials reviewed by the FSL Training Coordinator, DEU Technical Leader and/or the DD. Collected data and information obtained from detailed interviews of the DEU trainee will be utilized to establish a baseline in regard to the trainee's technical knowledge, skills and abilities.

The knowledge gaps identified will become the basis for an individual training plan tailored to the trainee's needs. This process will provide a flexible, focused, and efficient approach for training individuals new to the discipline, as well as individuals that have been involved in a training program elsewhere. Demonstrated competency levels may allow a Digital Evidence trainee to test out of particular modules within the Training Program.

Once a training plan has been established for a Digital Evidence trainee, they will work with trainer(s) for the mentorship/supervised casework portion of training. Trainer(s) will serve as the first line verification that deliverables and milestones within the training program have been met. The progress of the Digital Evidence trainee will be monitored through the use of module checklists, in which successful completion of a module will be indicated by the initials of the Trainee, Trainer or DEU Technical Leader.

External training courses may be substituted for specific module requirements with approval and documentation by the DEU Technical Leader and DD or designees.

Oral Boards

Oral boards are designed to test the trainee's knowledge on what they have learned in the training program and can/will serve as a form of competency testing. Trainees will be provided a topic/question to address within certain modules. The trainee shall answer the topic/question orally to a panel, without notes. Following the oral presentation by the trainee, the panel members will ask a series of questions related to the topic, or topics previously mastered, in the training program. In order to pass the oral board, the trainee must demonstrate sufficient knowledge of the subject, while presenting the information in an easy to understand method, and sufficiently answer technical questions posed by the panel. The purpose of

oral boards is to prepare the trainee for court testimony by exposing them to presentation of technical material throughout the training process and breaking down technical processes into manageable learning modules.

Thirty (30) Day Progress Reviews

Each trainee's progress should be reviewed and reported every thirty days. It is the responsibility of the trainee to report their progress on a 30 Day Progress Report form (Appendix 1). The form should be submitted to the FSL Training Coordinator and DEU Technical Leader at the end of each month for the duration of the training. These 30 Day Progress Report forms serve as the basis for trainees to later review their progress. These reports will serve as a reference in months and even years following qualification.

Training Binder

All practical work conducted by the trainee will be maintained in a "Training Binder". Whether notes are maintained electronically or hard copy is up to the discretion of the Digital Evidence Unit trainee. The training binder should be available for final review at the end of the training program. This binder will serve as a reference in the months and even years following qualification, and will assist in documenting the progress during training, where applicable.

Digital Evidence Examination Competency Tests

Each trainee will be required to pass competency checklist(s) for each discipline and sub-discipline for which he/she will be expected to perform examinations. These will be provided and administered by the DEU Technical Leader or trainer(s). When the trainee is ready, the competency test will be taken. The test can be taken up to three (3) times but must be passed before a trainee can be deemed competent.

Mock Trials

Upon completion of the DEU Training Program, the Digital Evidence trainee will participate in mock trials, where applicable. The purpose of the mock trial is to evaluate the trainee's ability to testify as an expert witness in judicial proceedings. The mock trials will highlight the trainee's oral presentation skills and her/his ability to relate complex scientific and technical information to lay persons. Sessions will be conducted in a simulated courtroom situation with the proceedings being formal and structured. The mock trials may occur with a gradual succession of difficulty and may cover multiple subcategories of the work that will be performed as a Digital Evidence Forensic Scientist. The mock trial(s) may be based on a mock case worked during the mentoring period, notes, diagram(s), and/or report(s). The Digital Evidence trainee will defend their work and/or conclusions reached from the review and/or work. The trainee will be scored using the Mock Trial Scoring Sheet.

Results of the mock trial will be provided to the trainee. The mock trials may also be recorded for future reference.

Completion of the Program

Successful completion of all of the requirements of the training program signifies that the Digital Evidence trainee can be nominated for Certification as a Digital Evidence Forensic Scientist from the DFS. The DEU Technical Leader must concur in regard to the Digital Evidence Analyst trainee's state of readiness before the certificate/authorization is issued.

Qualification Memo

A Digital Evidence Analyst may receive a qualification memo to perform certain duties within the DEU following the determination of competency on modules or documented prior work experience. This qualification memo will be issued by the DEU Technical Leader or DEU Unit Manager will clearly outline the services and/or techniques the Digital Evidence Analyst is competent to perform.

Failure to Meet the Goals of the Training Program

Failing twice in any single module competency or failure to successfully reach all milestones within 10 months (with exception for situations outside of the control of the trainee) may constitute a reason for removal from the DEU training program.

0.2 Roles and Responsibilities

DEU Trainee

- Will be responsible for maintaining and keeping an up to date training binder (whether hard or soft copy) which contains the records (i.e. checklists, notes, worksheets, photographs, etc.) generated during the training program.
- Has the ultimate responsibility for learning the materials necessary to successfully complete a competency checklist. The trainee should take an active role in obtaining the information needed (reading, observation, discussing/asking questions, etc.) to do so.
- Shall provide 30 Day Progress Report to the FSL Training Coordinator the last business day of each month (when completing the self-paced training program).
- Should keep DEU Management and Technical Leader apprised of their progress by keeping records of all competency documents.
- Shall immediately notify the FSL Training Coordinator, DD, and/or DEU Management of any problems or questions that arise, if their training is not progressing, if they are experiencing difficulty with the exercises, or to suggest modifications to the training program.

Trainer (or designee)

- Should be competency and proficiency tested in the area of instruction (where applicable) and/or have documented actual experience working in the subject matter of instruction.
- Shall be responsible for demonstrating a particular technique and observing the trainee perform the same procedure (where applicable).
- Shall reinforce the information gained from reading materials through detailed discussion of the technique during the demonstration and/or observation. This information should include both theoretical and practical aspects.
- Is responsible for initialing and dating training module checklists.
- May meet with the FSL Training Coordinator periodically to discuss the progress of the trainee.

Forensic Science Laboratory Training Coordinator (or designee)

- Oversees the training plan for each trainee.
- Shall monitor the trainee's progress and ensure the trainee is adhering to the prescribed timeline for completion of milestones.
- Should keep the DD and DEU Management apprised of the progress of each trainee.

Deputy Director (or designee)

- Shall periodically review the training program for relevance and update the program accordingly with the DEU Technical Leader and Manager.

- Shall maintain all records of competency for each trainee.

DEU Management (or designee)

- Shall review each thirty-day progress report to monitor the progress of the employee.
- Shall ensure the Trainer signs off on Module checklists to ensure the trainee is remaining on task and understands the material.
- Shall periodically review the training program for relevance and update the program accordingly with FSL Training Coordinator and/or DD.
- Shall issue written pass/fail feedback to trainee at the end of mock trials.

External Instructors

- Instructors that are external to the DFS will be evaluated and approved, based on their knowledge and experience of the subject matter of instruction, by the DEU Technical Leader and/or DEU Manager.

MODULE 1.0

DFS Orientation and Introduction

Objectives:

Familiarize the DEU trainee with the general operation and organization of the DFS. The trainee will have an understanding of the expectations of the Digital Evidence Unit Training Program, quality issues relevant to laboratory operations, and ethical and professional responsibilities of the position.

1. The DEU trainee should have orientation/training in the following:
 - DCHR New Employee Orientation
 - Attend DFS Onboarding Training
 - Meet with Agency Director (will be set up through Management)
2. The trainee should have an understanding of the overall structure of the DFS, FSL, and DEU. Topics will include but are not limited to the following:
 - DFS Organizational Overview (Onboarding)
 - Performance Evaluation/ Expectations (Supervisor)
 - Overview/Tour of the Consolidated Forensic Laboratory (CFL)
3. The trainee should have an understanding of the practices and procedures of the Quality Assurance Program in place at the DFS. Topics include, but are not limited to, the following:
 - Laboratory accreditation and the quality assurance system
 - Review and general understanding of DFS Quality Manuals to include: Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), and Standard Operating Procedures (SOPs) for Digital Evidence.
4. The trainee should have an understanding of the ethical and professional responsibilities for DEU analysts to include:
 - Professionalism
 - Competency and Proficiency
 - Clear Communications

Reading Material:

Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), Standard Operating Procedures (SOPs) for digital evidence and current DFS administrative policies.

Study/Discussion Questions:

None

Practical Exercises/Skills:

1. The trainee should automatically receive information pertaining to Objective 1 as a new employee. If the trainee has not received the information outlined in Objective 1 within the first two weeks of employment, they should notify their first line supervisor.
2. The DEU Manager will conduct, or appoint a member of the staff, to meet with the DEU trainee to ensure the training outlined in Objectives 2-4 have been met.
3. The trainee will meet with the DEU Technical Leader, FSL Training Coordinator, and/or DD to discuss prior digital evidence experience and educational background.

Demonstration of Competency:

None

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 1.0 Checklist- DFS Orientation and Introduction.”

MODULE 1.0 CHECKLIST DFS Orientation and Introduction

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials
Trainee has read all the required readings for Module 1.0	

TRAINING OVERVIEW

	Trainee Initials
Trainee has completed onboarding training.	
Trainee has provided emergency contact information to supervisor.	
Trainee has been introduced to the facility and personnel.	
Trainee has reviewed the organization and management structure.	
Trainee has reviewed the relevant job description.	
The goals of the training program have been explained.	
An assessment of trainee's background and experience conducted.	
Trainee has met with Agency Director	
Trainee has received Qualtrax login information	
Trainee has received LIMS login information	

SECURITY

	Trainee Initials
Trainee has received instruction on security policies	
Trainee has received applicable computer/network access	
Trainee has received key(s)/key card(s)	

DOCUMENTATION PROVIDED

	Trainee Initials
Trainee has provided the FSL Training Coordinator with the following:	
College Transcripts(s) if available	
Curriculum Vitae	
Documentation of employment start date	
Training Records	
Continuing education certificates	

MODULE 2.0

Laboratory Safety

Objectives:

To develop and demonstrate an understanding with the different hazards that may be encountered while working in the DEU.

Reading Material:

DFS Safety Procedures Manual, DFS MSDS Sheets for all chemicals in the DEU Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), Standard Operating Procedures (SOPs) for digital evidence and current DFS administrative policies. Refer to the DEU required readings checklist for additional reading material.

Study/Discussion Questions:

1. Describe the proper PPE worn while working in the DEU laboratory.
2. What is the laboratory policy on reporting health and safety incidents?

Practical Exercises/Skills:

1. Review the DFS Health and Safety Training Program and complete Safety Level 1, Safety Level 2 Chemical Hygiene and Bloodborne Pathogen Training.
2. Complete DEU Laboratory Safety walk-through, to include but not limited following:
 - Evacuation process from the facility, including the evacuation routes and meeting place.
 - Locations of fire extinguishers in laboratory, office area, and common areas.
 - Discuss use of fire extinguishers.
 - Provide phone numbers for emergency situations/show the location of phone numbers listed in the laboratory.
 - Locations of First Aid Kits in the laboratory and office areas.
 - Health and safety incident reporting.
 - Location of safety equipment, i.e. safety showers, eye wash stations, PPE, fume hoods.
 - Discuss the proper use of PPE.
 - Location of the Material Safety Data Sheets (MSDS).
 - Waste removal process for general lab, biohazard, and hazardous wastes.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Successful completion of Safety Level 1 and 2.

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 2.0 Checklist- Laboratory Safety”.

MODULE 3.0

Handling Digital Evidence

Objectives:

To learn the proper procedures for handling digital evidence during case inception, examination and return.

Reading Material:

DEU Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), Standard Operating Procedure for Handling Digital Evidence (DEUSOP01), Digital Evidence Training e-Packet.

Study/Discussion Questions:

1. When retrieved from CEU how is all digital evidence packaged?
2. When returning evidence to CEU or a detective, how do you reseal the evidence? What marking indicate that the package is resealed?
3. What is needed to photograph a piece of digital evidence?

Practical Exercises/Skills:

1. Locate the following in the DEU Laboratory:
 - DEU Camera(s)
 - rulers
 - camera batteries
 - SD Card
 - photo settings (brown paper, anti-static mat, laboratory bench, etc.)
 - scalpel/scissors
 - sealable evidence tape
 - evidence bags/evidence storage materials
2. Examine the packaging of evidence retrieved from the Central Evidence Unit (CEU), evidence in the DEU evidence storage and evidence returned to the CEU.
3. Explain to trainer the proper packaging of evidence for pickup and return to CEU and demonstrate how to photograph a mobile device and a computer in the DEU Laboratory.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 3.0 Checklist- Handling Digital Evidence”.

MODULE 3.0 CHECKLIST Handling Digital Evidence

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 3.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has ability to answer study/discussion questions for Module 3.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 3.0, noted the results in their training binder, and results were reviewed by the trainer for accuracy.		

Signatures below represent successful completion of Training Module 3.0.

Trainee/Date

Trainer/Date

MODULE 4.0

LIMS

Objectives:

To learn the case management system with regard to the Digital Evidence Unit.

Reading Material:

DEU Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), Standard Operating Procedure for Case Creation (DEUSOP04).

Study/Discussion Questions:

None

Practical Exercises/Skills:

Observe DEU Member add evidence item to LIMS, transfer evidence item, create evidence item, and enter findings/mark item draft complete.

If access to training LIMS available, do all six tasks and have trainer observe the results.

1. Search for a case in LIMS by CCN, DFS number and by agency.
2. Locate a DEU request and warrant/consent.
3. Enter findings. Mark request draft complete.
4. Transfer evidence item.
5. Create evidence item.
6. Enter items into communications log.

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 4.0 Checklist- LIMS".

MODULE 4.0 CHECKLIST LIMS

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 4.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 4.0, noted the results in their training binder.		

Signatures below represent successful completion of Training Module 4.0.

Trainee/Date

Trainer/Date

MODULE 5.0

Case Creation and Documentation

Objectives:

To learn how to create and document a case file on DEUNet, including the appropriate acquisition and analysis forms.

Reading Material:

DEU Quality Assurance Manual (QAM), Department Operations Manuals (DOMs), Laboratory Operations Manuals (LOMs), Standard Operating Procedure for Case Creation (DEUSOP04).

Study/Discussion Questions:

None

Practical Exercises/Skills:

1. Create a test case on DEUNet using the template and DEUSOP04.
2. Add acquisition forms to the appropriate part of the case file on DEUNet.
3. Review the case completion checklist and become familiar with all forms.

Must explain to trainer why case is created in a certain place and how to determine appropriate case numbers. Trainee must be able to articulate what acquisition forms are added to case folders, what goes in each folder and why. Must also explain what goes in each field in the form, where to find the information and why the forms are being used.

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 5.0 Checklist- Case Creation and Documentation".

MODULE 5.0 CHECKLIST Case Creation and Documentation

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 4.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 4.0, noted the results in their training binder.		

Signatures below represent successful completion of Training Module 5.0.

Trainee/Date

Trainer/Date

MODULE 6.0

Digital Device Acquisition

Objectives:

To learn how to properly image a digital device, and document the process and store image on DEUNet.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure for Forensic Duplication (Imaging) (DEUSOP05), DEUF02 Digital Device Acquisition Form.

Study/Discussion Questions:

1. Where is the working copy stored on DEUNet?
2. What is used to verify the integrity of the forensic copy (image) and where is it stored?
3. Are the agency case number and the DFS case number the same?
4. When does a technical and administrative review of the digital evidence acquisition? Who does these tasks?

Practical Exercises/Skills:

1. Image a device using a hardware imager. Fill out the appropriate acquisition form documenting the imaging process. Store in the case folder on DEUNet.
2. Image a device using a software imager. Fill out the appropriate acquisition form documenting the process. Store in the case folder on DEUNet.
3. Create a Best Evidence copy and document accordingly.
4. Document in LIMS the appropriate items including the request assigned to you.

Must explain to trainer why case is created in a certain place and how to determine appropriate case numbers. Trainee must be able to articulate what acquisition forms are added to case folders, what goes in each folder and why. Must also explain what goes in each field in the form, where to find the information and why the forms are being used.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 6.0 Checklist- Digital Device Acquisition”.

MODULE 6.0 CHECKLIST Digital Device Acquisition

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 6.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has the ability to answer study/discussion questions for Module 6.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 4.0, noted the results in their training binder.		

Signatures below represent successful completion of Training Module 6.0.

Trainee/Date

Trainer/Date

MODULE 7.0

Digital Device Analysis

Objectives:

To learn how to analyze a digital device based on the scope of a warrant and document the process accordingly.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure for Forensic Duplication (Imaging) (DEUSOP05), Standard Operating Procedure SIM Card Examination (DEUSOP03), Standard Operating Procedure on Analysis, Interpretation and Reporting (DEUSOP07), DEUF05 Forensic Examination Form.

Study/Discussion Questions:

1. What are the fields on the examination form? Why are these fields important?
2. How do the fields correlate to the report(s)?
3. Why is it important to ensure the use of validated tools?
4. What are the distinctions between the different types of reports?

Practical Exercises/Skills:

1. Analyze a warrant and describe what data is being requested.
2. Using the image created from Module 6, provide analysis based on the scope of a search warrant. Choose the correct analysis form to base your report,
3. Write up a report using the DEU reporting templates based on the image and the warrant.
4. Complete the paperwork and LIMS entries for this request.

Must prove the analysis was based on the scope of the warrant and that has been completed and documented. The analysis must be correct based on the scope of the warrant. The Digital Device Examination form has been completed. A report has been completed using the report template and all fields are accurately and appropriately filled out.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Successful completion of Oral Board focused on digital device acquisition and analysis.

Suggested Coursework:

Guidance Software's Forensics I & II
SANS408 Windows Forensics
SANS518 Mac Forensic Analysis

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 7.0 Checklist- Digital Device Analysis".

MODULE 7.0 CHECKLIST Digital Device Analysis

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 7.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has the ability to answer study/discussion questions for Module 7.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 7.0, noted the results in their training binder.		
Trainee has successfully completed oral board with a score of PASS.		

ORAL BOARD

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully passed Oral Board		

Signatures below represent successful completion of Training Module 7.0.

Trainee/Date

Trainer/Date

MODULE 8.0

Mobile Device Acquisition

Objectives:

To learn how to forensically acquire or image a mobile device and document the process accordingly.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure Mobile Device Examination (DEUSOP02), Mobile Device Acquisition Form (DEUF01).

Study/Discussion Questions:

None.

Practical Exercises/Skills:

1. Image a mobile device using a software imager.
2. Image of mobile device using a hardware imager.
3. During both exercises, fill out the appropriate acquisition form completely.
4. Review both images using analysis software.

Trainer to ensure Mobile Device Acquisition forms are comprehensively filled out and an image of the mobile device is in the case file on DEUNet. A best evidence copy has been made and entered into LIMS and stored appropriately.

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Suggested Coursework:

SANS585 Advanced Smartphone Forensics

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 8.0 Checklist- Mobile Device Acquisition”.

MODULE 8.0 CHECKLIST Mobile Device Acquisition

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 8.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 8.0, noted the results in their training binder.		

Signatures below represent successful completion of Training Module 8.0.

Trainee/Date

Trainer/Date

MODULE 9.0

Mobile Device Analysis

Objectives:

To learn how to analyze a forensic acquisition of a mobile device based on the scope of the warrant.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure Mobile Device Examination (DEUSOP02), Forensic Examination (DEUF05).

Study/Discussion Questions:

1. What is the difference between the scope of the warrant and the data available on the mobile device?
2. What tools are primarily used in both acquisition and analysis?

Practical Exercises/Skills:

1. Using a warrant, identify what you can pull off the mobile device based on the scope provided in the warrant.
2. Using the mobile device image created in Module 8, do analysis of the mobile device image and fill out the appropriate form for analysis.
3. Create a report for the request based on your examination.
4. Following the Case Checklist, ensure all steps are complete. Present report to trainer.

A report must be created based on the image and scope of warrant. The Forensic Examination form has been filled out completely and is referenced in the report using the correct template.

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

A successful completion Oral Board focused on mobile device acquisition and analysis.

Suggested Coursework:

SANS585 Advanced Smartphone Forensics

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 9.0 Checklist- Mobile Device Analysis”.

MODULE 9.0 CHECKLIST Mobile Device Analysis

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 9.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has the ability to answer study/discussion questions for Module 9.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 9.0, noted the results in their training binder.		
Trainee successfully completes oral board with a PASS score.		

ORAL BOARD

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully passed Oral Board		

Signatures below represent successful completion of Training Module 9.0.

Trainee/Date

Trainer/Date

MODULE 10.0

Advanced Mobile Forensics

Objectives:

Become proficient in advanced techniques, specifically JTAG and Chip Off.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure JTAG (DEUSOP09), Standard Operating Procedure Using Chip Off for Mobile Device Examinations (DEUSOP10).

Study/Discussion Questions:

None

Practical Exercises/Skills:

Attends JTAG and ChipOff training by credible provider

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

The trainee must successfully pass a qualifying test relevant to his/her job description. This test will represent a mock case using samples representative of the samples the trainee will be analyzing on the job. The trainee will prepare full documentation of the analysis in accordance to the laboratory's standard protocols and policies. The trainee must pass this final competency exam.

Suggested Coursework:

SANS585 Advanced Smartphone Forensics

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 10.0 Checklist- Advanced Mobile Forensics".

MODULE 10.0 CHECKLIST Advanced Mobile Forensics

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 10.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 10.0, noted the results in their training binder.		

COMPETENCY TEST

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the competency test for Module 10.0, with a score of 80 or greater.		

Signatures below represent successful completion of Training Module 10.0.

Trainee/Date

Trainer/Date

MODULE 11.0

Vehicle Forensics

Objectives:

Become proficient in acquiring data stored in a vehicle's infotainment system and perform competent analysis on the data.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure Vehicle Forensics (DEUSOP11)

Study/Discussion Questions:

None

Practical Exercises/Skills:

Attends Berla's iVee training

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

The trainee must successfully pass a qualifying test relevant to his/her job description. This test will represent a mock case using samples representative of the samples the trainee will be analyzing on the job. The trainee will prepare full documentation of the analysis in accordance to the laboratory's standard protocols and policies. The trainee must pass this final competency exam.

Suggested Coursework:

Berla iVee

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 11.0 Checklist- Vehicle Forensics".

MODULE 11.0 CHECKLIST Vehicle Analysis

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 11.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 11.0, noted the results in their training binder.		

COMPETENCY TEST

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the competency test for Module 12.0, with a score of 80 or greater.		

Signatures below represent successful completion of Training Module 11.0.

Trainee/Date

Trainer/Date

MODULE 12.0

Video Forensics

Objectives:

Enhance and clarify video (if possible) from CCTV.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure Video Forensics (DEUSOP06).

Study/Discussion Questions:

None

Practical Exercises/Skills:

1. Create still shots of a video.
2. Use Photoshop to change colors and invert contrast in still shot.
3. Convert video format to another format.

Video has been converted from original and still shots have been created from a video.

Demonstration of Competency:

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

The trainee must successfully pass a qualifying test relevant to his/her job description. This test will represent a mock case using samples representative of the samples the trainee will be analyzing on the job. The trainee will prepare full documentation of the analysis in accordance to the laboratory's standard protocols and policies. The trainee must pass this final competency exam.

Suggested Coursework:

Ocean Systems Video Forensics I

Documentation:

Completion of the tasks in this module will be documented on the checklist titled "Module 12.0 Checklist- Video Forensics".

MODULE 12.0 CHECKLIST Video Analysis

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 4.0		

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 4.0, noted the results in their training binder.		

COMPETENCY TEST

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the competency test for Module 12.0, with a score of 80 or greater.		

Signatures below represent successful completion of Training Module 12.0.

Trainee/Date

Trainer/Date

MODULE 13.0

Reporting and Case Completion

Objectives:

Understand all items in a DEU a case, analysis and how they are finalized within DEU and FSL.

Reading Material:

DEU Quality Assurance Manual (QAM), Standard Operating Procedure Analysis, Interpretation and Reporting of Results (DEUSOP07), Case Completion Checklist, Digital Evidence Report (DEUF11 & DEUF16).

Study/Discussion Questions:

1. Why are there multiple types of reports?
2. What form is also necessary when creating a Report of Examination and a Digital Evidence Report?

Practical Exercises/Skills:

1. Identify the types of reports DEU creates for different types of analysis.
2. Create a Data Extraction Report.
3. Create a Report of Examination and a Digital Evidence Report.

All types of reports are written and completed. The trainer has reviewed the reports in the proper template and found the content, formatting and mechanics acceptable.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 13.0 Checklist- Reporting and Case Completion”.

MODULE 13.0 CHECKLIST Case Completion and Reporting

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 13.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has the ability to answer study/discussion questions for Module 13.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 13.0, noted the results in their training binder.		

Signatures below represent successful completion of Training Module 13.0.

Trainee/Date

Trainer/Date

MODULE 14.0

Administrative and Technical Review

Objectives:

To understand the administrative and technical review process and how it relates to digital analysis.

Reading Material:

DEU Quality Assurance Manual (QAM), Technical Review Form (DEUF06) and Administrative Review Form (DEUF09).

Study/Discussion Questions:

1. What is the purpose and process of conducting the administrative/technical reviews?

Practical Exercises/Skills:

Select a case from prior DEU cases. Examine the documentation of the case. Fill out the Technical Review Form (DEUF06) and the Administrative Review Form (DEUF09). The trainer will review the form and the case work for successful completion.

Demonstration of Competency:

Study/Discussion Questions are answered and trainer has reviewed the answers for accuracy.

Practical Exercises are successfully completed, results in the form of notes and/or photographs (where applicable) are included in Training Binder, and the trainer has reviewed for accuracy and meeting the objectives of the exercise(s).

Documentation:

Completion of the tasks in this module will be documented on the checklist titled “Module 14.0 Checklist-Technical and Administrative Review”.

MODULE 14.0 CHECKLIST Administrative and Technical Review

Trainee:	Trainer:	Job Title:
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READING MATERIAL

	Trainee Initials & Date	Trainer Initials & Date
Trainee has read all the required readings for Module 14.0		

STUDY/DISCUSSION QUESTIONS

	Trainee Initials & Date
Trainee has the ability to answer study/discussion questions for Module 14.0.	

PRACTICAL EXERCISES/SKILLS

	Trainee Initials & Date	Trainer Initials & Date
Trainee has successfully completed the practical exercises in Module 14.0, noted the results in their training binder.		
Trainee has successfully completed the DEU competency test.		

Signatures below represent successful completion of Training Module 14.0.

Trainee/Date

Trainer/Date

MODULE 15.0

Expert Testimony and Mock Trials

Objectives:

To gain familiarity with courtroom etiquette and to gain experience in presenting scientific results in accurate but non-technical terms in a court of law.

The trainee should have an understanding of the principles of courtroom etiquette and presentation of evidence, which may include but are not limited to the following:

- Courtroom demeanor and attire.
- Courtroom procedures and rules.
- Rules of evidence packaging and handling in the courtroom setting.
- Analyst/Technician qualifications.
- Expert witness testimony.
- Discovery issues.
- General guidelines and Frye and Daubert hearing procedures.
- Ethical responsibilities of the expert witness.
- Appropriate public speaking etiquette.
- Significance of accreditation.

Reading Material:

DEU Quality Assurance Manual (QAM).

Study/Discussion Questions:

None

Practical Exercises/Skills:

1. Observe multiple qualified analysts/technicians (as available) testify in court and take notes as to courtroom attire, courtroom procedure (e.g., swearing in, direct, cross, and re-direct and/or re-cross questioning, etc.), evidence handling (if applicable), qualifying questions, technical testimony, and any other pertinent observations.
2. Courtroom testimony question and answer training session with trainer, General Counsel, or designee including but not limited to, the following topics:
 - Qualifying/Voir dire questions
 - Direct examination
 - Cross examination
 - Explanation of analytical processes and SOPs

3. Participate in a comprehensive mock trial to prepare and evaluate the trainee as an expert witness in the field of digital evidence analysis.

Guidelines for Mock Trial:

1. The atmosphere of the trial should be formal. It should be conducted in the same manner as a real courtroom situation. This includes conduct, protocol, and all other aspects.
2. Harassment of the expert witness by the defense counsel or prosecutor should be kept to the minimum necessary to achieve the desired goal. Questioning by both the prosecutor and defense attorney should be relevant and realistic.
3. The participants can include a judge, prosecutor, and defense. Mock Trials require five (5) evaluators, with four (4) evaluators being subject matter experts. Each evaluator is required to score the witness using the Mock Trial Scoring Sheet. Scores will be tallied by each evaluator and combined for a final score. Passing score for a final mock trial is a combined score of 80% or The "attorneys" must be qualified analyst(s), lawyer(s), or suitable individual(s) designated by the technical leader or training coordinator. It is desirable that this person has knowledge in the area in which the trainee will be testifying. FSL Management reserves the right to use attorneys from stakeholder agencies as participants, evaluators, and/or observers to the mock trials.
4. Permitting "observers" is at the discretion of the FSL Director and/or FBU Management. Observers can review and provide feedback to the trainee as to performance; however, they will not be a grading evaluator.
5. Mock Trials may be videotaped and provided to the trainee as a feedback mechanism.
6. Evaluators will orally provide feedback on performance with the trainee immediately following the mock trial. The FBU Technical Leader will provide feedback in writing of any deficiencies and pass/fail status.

Demonstration of Competency

Successful passing of mock trial with a maximum of two mock trials provided.

Documentation

Completion of this module will be documented on the Mock Trial Scoring sheet and formal documentation of pass/fail from FSL Director (or designee).