

**A. PURPOSE:**

General laboratory training: used to introduce new analytical employees to the general operating procedures of the Division of Scientific Services. The goal is to have new analysts introduced to the general operating procedures of the Division prior to their intensive Section/Unit specific training.

Retraining: used to re-introduce analysts to Section/Unit specific training. This may be due to many reasons, from a failure of a proficiency test, to return to work after an extended absence.

**B. SCOPE:**

Besides training newly hired personnel, the DSS offers training opportunities for continuing education beyond the required in-house training and competency testing. Outside training opportunities include, but are not limited to, courses, seminars and professional meetings which provide a means to remain current and/or increase expertise in a particular field.

All analysts (however titled) and contract employees must show technical competency in their given discipline prior to assuming independent case work. This is demonstrated by the use of competency tests in the assigned Unit. This procedure is for general laboratory guidance to introduce the trainee to the Division and its general practices. All components in this GL must be met. If Sections choose to go above and beyond these requirements, specifics will be found in the Section or Unit SOPs.

NOTE: The length and duration of the training will be dependent upon the knowledge, skills and abilities that a new employee brings to their position. All training steps must be addressed as appropriate for the trainee, based on their knowledge, skill and experience. The length of time necessary to complete the training process will vary depending again on the knowledge, skill and experience of the trainee. Any modifications to a training program will be documented. The Unit's specific training manual will always be used unless a deviation/modification is approved by the Director. If modifications are approved, then the training manual will reflect those changes in writing, in the manual. Regardless of past experience, all trainees must successfully complete a full competency test (practical and written or oral) as indicated in the respective training manual. There is to be no modifications allowed to competency tests.

**C. RESPONSIBILITY:**

Trainees: responsible to follow the guidance of the trainer to ask questions when they do not understand a policy or procedure and to understand their importance and the importance of the laboratory in criminal justice system.

Trainers: responsible to train employees based on laboratory policy. General Laboratory training will be performed by the Quality Section, or designee as appointed by the Director.

Section Supervisor/Unit Lead: responsible to work with the Quality Section to ensure that the General Laboratory training is scheduled in a timely manner for new employees.

Deputy Director (DD), Assistant Director (AD) and Scientific Services Administrative Manager (SSAM): responsible for ensuring the adequate supervision for the training of new employees in their sections.

Director: directs and approves laboratory policies and procedures that support adequate training to provide employees expertise in their discipline.

**D. PROCEDURE:** New employee – Analyst (however titled)

A member of the Quality Section or a designee will perform General Laboratory training of new employees. The Section Manager must inform the Quality Section when a new hire is starting so that the training can be scheduled. The trainer will utilize the "General Laboratory Training Checklist" (GL-14.1) as a guide in performing the training. Contract employees are trained in the same manner as a new employee.

The General Laboratory Training will include all topics listed on the checklists GL-2.2 "Safety Training Check list for New Employees" and GL-14.1 "General Laboratory Training Checklist". Portions of the General Laboratory training will be completed independently through Qualtrax; these include: General Forensics training, Level 1 Collect Security Awareness training, and Review of Legal Proceedings and rulings.

1. All new employees must know the significance of the Division Mission Statement, and read and Understand the General Laboratory SOPs.

Division of Scientific Services Mission Statement:

*It is the on-going policy of the Division of Scientific Services to provide services that meet our specifications and comply with the ANAB AR3125, ISO/IEC 17025, the FBI DNA QAS and the ATF MROS requirements while meeting or exceeding the expectations of the criminal justice community.*

2. All aspects of the training relating to technical competency including, required knowledge, skills and abilities and moot court shall be addressed in Unit specific training SOPs.
  - a. Unit SOPs will include the use of competency tests (practical and written or oral) to demonstrate competency of all analysts (however titled) performing testing. Prior to assigning competency tests the training binder should be reviewed by the Quality Section; form GL-14.3 will document this review.
    - i. Practical examination(s) covering the spectrum of anticipated tasks related to the testing. Passing will at minimum include achieving the intended results, including the demonstration of appropriate documentation.
    - ii. Written or Oral Examination: These examinations should cover an overview of the topic(s) addressed in the method(s) being assessed. A grade of 80% or greater is required for the passing of a written competency test. Units using verbal

competency tests will have clear guidance in their training SOPs on how these will be graded and clearly documented. All training and competency tests must be maintained with the trainee's training file.

- iii. The intended results of the competency test shall be achieved and authorization obtained prior to performing tasks on evidence.

3. General Training will include:

- a. Introduction to the general structure of the DSS.
  - b. Introduction to safety issues, such as fire alarms, evacuation routes, the active shooter response plan and other general laboratory wide topics. Specific safety instructions will be given during Unit specific training. (See SOP GL-2 Safety).
  - c. Introduction to the DSS laboratory system including the role the laboratory plays in the criminal justice system.
  - d. Introduction to ethics in the forensic laboratory and the ANAB 'Guiding Principles of Professional Responsibility for Forensic Service Providers and Forensic Personnel' (See SOP GL-5).
  - e. Introduction to the General Laboratory SOPs through Qualtrax.
  - f. Introduction to the use of Qualtrax.
  - g. GL-3 Security as pertains to the building systems.
  - h. GL-9 Quality Action Requests; specifically the availability of this resource to individual employees.
  - i. GL-15 Professional Development; specifically the availability of outside training, and membership in professional organizations.
  - j. Note that other general laboratory SOPs will be introduced as appropriate during Unit specific training.
  - k. New hires to non-analytical laboratory support positions will be given an abbreviated general training based on the needs of the position; this will be determined by the Quality Section with the Director. For example an individual hired as a secretary may be introduced to GL SOPs 1-6, but not necessarily GL-7 to GL-20 which relate more to case work and evidence handling.
4. There will be no testing for the General training section since this only acts to introduce the trainee to the Division.
- a. This will be documented using General Training Checklist form GL-14.1. This document will be scanned and added to the analyst's training records in Qualtrax. The paper copy will be maintained with the analyst's training records for their assigned Unit.

- b. Note: that as use of Qualtrax software is implemented documentation of this training may be maintained by using Qualtrax instead of the form listed above.
- 5. The Training Program for personnel who perform testing and can influence results, to the extent necessary based on job function, shall include:
  - a. General Forensic Training, this will include a brief introduction to various forensic science disciplines. This may be achieved by attending a course given by a laboratory employee or through training in Qualtrax, or other appropriate pre-approved manner.
  - b. Knowledge, skills and abilities, individuals will demonstrate these topics throughout the training program and competency test.
  - c. Legal Issues, this will cover general topics that affect this laboratory including information of some legal precedents (Frye, Daubert, etc.). This training may be given by a guest speaker, by a laboratory employee, through on-line training or other pre-approved training manner.
    - i. Note: individual Unit will cover issues and laws that impact the Unit.
  - d. Ethics, the application of ethical practices in forensic science.
  - e. Criteria for acceptable performance, will be included in the Units' training manuals. Feedback on training assignments/worksheets and pass/fail results on tests will be included.
  - f. Authorizations: Unit training programs will address requirements for authorizations in the following tasks (defined above):
    - i. Development, Modification, Verification & Validation of methods
    - ii. Performance of Laboratory Activities including Testing, Calibration and Sampling
    - iii. Analysis of Results
    - iv. Authorize Results
    - v. Review Results (such as for trends in reported results)
    - vi. Verification of Results
    - vii. Technical Review
    - viii. Express Opinion or Interpretations
    - ix. Report Results, Authorize reports
  - g. To perform 'Development, Modification, Verification & Validation of Methods' the following is required:
    - i. Meet educational requirements of the analyst's titled position.

1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
  2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
  3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
- ii. Have completed the general DSS training requirements for an analyst as listed in this document.
  - iii. Have training in the discipline in which the task is to be performed.
  - iv. Be authorized by the Director in the task(s).
- h. To 'Perform Laboratory Activities including Testing, Calibration and Sampling' the following is required:
- i. Meet educational requirements of the analyst's titled position.
    1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
    2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
    3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
  - ii. Have completed the general DSS training requirements for an analyst as listed in this document.
  - iii. Have completed the training for the task(s) is to be performed within the specific Unit.
  - iv. Have successfully completed a practical and written competency test in the task(s) to be performed within the specific Unit.
  - v. Have competency monitored through normal laboratory practices (i.e. Proficiency testing).
  - vi. Be authorized by the Director in the task(s).
- i. To perform 'Analysis of Results' the following is required:
- i. Meet educational requirements of the analyst's titled position.

1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
  2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
  3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
- ii. Have completed the general DSS training requirements for an analyst as listed in this document.
  - iii. Have completed the training for the task(s) is to be performed within the specific Unit.
  - iv. Have successfully completed a practical and written competency test in the task(s) to be performed within the specific Unit.
  - v. Have competency monitored through normal laboratory practices (i.e. Proficiency testing).
  - vi. Be authorized by the Director in the task(s).
1. Note: the analysis of results is the act of reviewing data/results to interpret and arrive at a result, opinion or interpretation. In general, this will relate to the 'Findings Entered' milestone in JusticeTrax.
- j. To perform 'Review of Results' the following is required:
- i. Meet educational requirements of the analyst's titled position.
    1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
    2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
    3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
  - ii. Have completed the general DSS training requirements for an analyst as listed in this document.
  - iii. Have completed the training for the task(s) is to be performed within the specific Unit.

- iv. Have successfully completed a practical and written competency test in the task(s) to be performed within the specific Unit.
- v. Have competency monitored through normal laboratory practices (i.e. Proficiency testing).
- vi. Be authorized by the Director in the task(s).
  - 1. Note: Review of results is the act reviewing data for trends or issues. This is not to be confused with technical review of results. In general, this is the review of reported results.
- k. To perform 'Authorize Results' the following is required:
  - i. Meet educational requirements of the analyst's titled position.
    - 1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
    - 2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
    - 3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
  - ii. Have completed the general DSS training requirements for an analyst as listed in this document.
  - iii. Have completed the training for the task(s) is to be performed within the specific Unit.
  - iv. Have successfully completed a practical and written competency test in the task(s) to be performed within the specific Unit.
  - v. Have competency monitored through normal laboratory practices (i.e. Proficiency testing).
  - vi. Be authorized by the Director in the task(s).
    - 1. Note: The authorizer of results is the equivalent of the case analyst; the individual(s) that forms the opinion or interpretation of the result. Generally this is the person setting the JusticeTrax milestone to 'Draft Complete'.
    - 2. Note 2: The actions of the 'analysis of results', 'review of results', 'authorizing results', 'expressing opinions/interpretations' and 'reporting of results' may be performed by a single person or more than one person.
- l. To perform 'Verification of Results' the following is required:

- i. Meet educational requirements of the analyst's titled position.
  - 1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
  - 2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
  - 3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
- ii. Have completed the general DSS training requirements for an analyst as listed in this document.
- iii. Have completed the training for the task(s) is to be performed within the specific Unit.
- iv. Have successfully completed a practical and written competency test in the task(s) to be verified within the specific Unit.
- v. Have competency monitored through normal laboratory practices (i.e. Proficiency testing).
- vi. Be authorized by the Director in the task(s).
- m. To perform 'Technical Review' the following is required:
  - i. Have been competency tested in the work that is to be performed.
    - 1. The DSS distinguishes 2 types of technical reviewer:
      - a. Technical Reviewer: Used in disciplines where 1 person is responsible for the overall case (analyst) the technical reviewer must have been competency tested in all work that is part of the casework reviewed.
      - b. Batch Technical Reviewer: used in areas where casework is batched. The Technical Reviewer of this data must have been competency testing in the work being reviewed. This is a review of the overall batch for technical compliance (use of controls, calibrators, blanks and other components as required).
        - i. Note: In JusticeTrax the technical review milestone may be updated by the Technical Reviewer or the Authorizer of report.
- n. To "Express Opinion or Interpretation" the following is required:
  - i. Meet educational requirements of the analyst's titled position.



1. FB/DNA Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science; additionally the educational requirements of the FBI DNA QAS document will be met for DNA analysts.
2. Chemical Analysis Section: minimally a baccalaureate in a chemical, physical or biological science or in forensic science.
3. Identification Section: minimally six years of experience in forensic analysis of evidentiary material.
- ii. Have completed the general DSS training requirements for an analyst as listed in this document.
- iii. Have completed the training for the task(s) is to be performed within the specific Unit.
- iv. Have successfully completed a practical and written competency test in the task(s) to be verified within the specific Unit.
- v. Be authorized by the Director in the task(s).
- o. To perform 'Report Results' and/or 'Authorize Reports' the following is required:
  - i. Be authorized by the Director (or designee) in the task(s).
  - ii. Note: This task is generally equivalent to administrative review milestone in JusticeTrax. See further guidance on this task in GL-18 'Case Review' specific to the Toxicology Unit.
6. Training records: Trainees are responsible to maintain training records in an organized manner. Deputy Directors (or designees) are responsible to identify a storage location for training binders for their areas. Training files should include at a minimum:
  - a. Documentation of training records (training assignments, projects, quizzes, mock case assignments, other)
  - b. Documentation of feedback given
  - c. Training checklists
  - d. Memo's concerning training progress (if applicable)
  - e. Authorization documents
    - i. Training documentation must be maintained as new training is performed.
7. Interns: interns are used at different levels within the Division. All interns will be required to be introduced to the Ethics SOP and the state Ethics policy. Training checklist GL-14.2 is to be completed for each intern.

When approved by the Director, interns may handle evidence items if the items in question are marked for destruction.

- a. Note: Rarely, interns will be brought in for a limited time period (a week or less); in these cases the need for ethics training will be at the discretion of the Director and/or Scientific Services Administrative Manager.

8. Re-Assignment:

- a. Re-Assignment of Division employees may occur based on the needs of the DSS. This may be between Units within a Section or between Units. When an employee is transferred to a new Unit or is being cross trained in another Unit, it is expected that the training within the Unit will be followed but may be modified.
  - i. The Unit Supervisor or Lead should work with the Section DD, AD or SSAM to determine what general topics need not be repeated. For the DNA Unit the Technical Leader will accept the modified plan. The Unit Manager and Supervisor or Lead will review the Unit training SOP to determine what the trainee has already been trained in within the DSS. A notation on the training manual or checklist can document the modified training plan.
- b. It is expected that Unit specific training would follow the normal training path but may be modified based on the experience level of the trainee and level of training required.
  - i. It is acceptable for a Unit to train individuals on specific tasks and not the complete Unit procedures based on the needs of the DSS. In these cases the full training checklist may not be used.
  - ii. Demonstration of competency will be documented based on normal Unit procedure and as described above.

**E. PROCEDURE: Retraining**

1. Provisions for retraining will be included in each Unit's training program. When it is determined by a Manager in the respective Unit that significant retraining is necessary, the examiner will be de-authorized (in writing) temporarily from the task(s) until the retraining has successfully been completed. Retraining will end with a competency test and a re-authorization by the Director.
2. In the event that an examiner requires retraining in any aspect of his/her job performance, pertinent sections of the training manual can be used and documented as done in the initial training process or the Deputy Director (or Designee) can pre-approve a training plan specific to the needs.
3. The need for training/retraining of personnel is expected to be identified as a function of the routine Quality Control/Quality Assurance program of the laboratory, including technical reviews, and evaluation of proficiency testing programs, as well as the annual audit program.
4. Supervisors or Leads that feel re-training is required must consult with the Assistant Director and/or Deputy Director to develop a plan for the re-training based on the issue at hand. The

Quality Section will be updated when the need for retraining is identified. Based on the cause of the need for the retraining a QAR may be required. If retraining is required for a DNA analyst the DNA Technical Leader will be involved and give approval of the plan.

5. The need for retraining may arise due to multiple circumstances including but not limited to:
  - a. Prolonged absence from the DSS, the definition of prolonged absence will be Section/Unit dependent (i.e. an employee newly deemed competent absent for two months may require re-training where a seasoned Section/Unit member absent for three months may not require re-training). This will be decided on a case by case basis.
  - b. Failure of a proficiency
  - c. Poor court monitoring reviews
  - d. Problems identified during technical reviews
  - e. Other case examination deficiencies as observed by the Unit Lead
    - i. Note that the extent of re-training will be dependent on the reason for the need of the re-training.
6. Documentation of re-training will be in the form of a memo to the individual's Training/ Professional Development File or through the completion of a QAR.
7. Documentation of the re-training is to be maintained in the individual's training records. The following must be detailed in the training records:
  - i. Name of person being re-trained
  - ii. Reason for re-training
  - iii. Date of start and end of re-training
  - iv. Documentation of de-authorization and re-authorization (if applicable)
  - v. Topics addressed in retraining and how the topics were addressed (simple discussion, re-analysis of case work, competency challenge etc...).
  - vi. Determination of satisfactory completion of re-training
  - vii. Name of person who performed the training
  - viii. Sign-off by Section Supervisor or Unit Lead with a review by the Deputy or Assistant Director or Quality Section. For the DNA Unit the Technical Lead will also approve the training.
8. Upon satisfactory completion of the re-training and related competency tests an authorization must be obtained from the Director either through a memo approval or through the use of an authorization workflow in Qualtrax.

**F. REFERENCES:**

1. Unit training manuals
2. Professional development SOP GL-1
3. State Employee Ethics Guide  
[http://www.ct.gov/ethics/lib/ethics/guides/public\\_officials\\_guide\\_10.pdf](http://www.ct.gov/ethics/lib/ethics/guides/public_officials_guide_10.pdf)
4. Ethics SOP GL-5
5. Security SOP GL-3

6. Quality Action Request SOP GL-9

7. In-house training records

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