

DNA: Personnel

**Job
descriptions
and
qualifications**

The general knowledge, skills, and abilities required for each technical classification within the laboratory are given in the job specification statements prepared by the Sacramento County Personnel Services Department.

QAS

5.1

5.1.1

Specific additional qualifications are required for individuals assigned to perform DNA analytical work and are described below. These requirements are designed to ensure that the staff has training, education, and proficiency commensurate with their duties and that the ASCLD/LAB-International standards and the Quality Assurance Standards for Forensic DNA Testing Laboratories (current FBI guidelines) are met.

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DNA: Personnel, Continued

Technical Lead Responsibilities:

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5.2.3.1.1

5.2.3.1.2

5.2.3.2.1

5.2.3.2.2

5.2.3.2.3

5.2.3.2.4

5.2.3.2.5

5.2.3.2.6

- oversee the technical operations of the unit
- authority to initiate, suspend, and resume analytical operations for the unit or an individual
- evaluate and document approval of all validations and methods used in the unit
- propose new or modified analytical procedures
- review and document the review of the academic transcripts and training records for newly qualified analysts and approve their qualifications prior to their conducting independent casework analysis
- if necessary, approve the technical specifications for outsourcing agreements
- review and document the review of internal and external DNA audit documents and, if applicable, approve corrective actions
- review annually the procedures of the unit and document such review
- review and approve the training, quality assurance, and proficiency testing programs in the unit

5.2

Qualifications:

To be qualified to perform the above listed responsibilities, the Technical Lead must have knowledge of forensic DNA testing as indicated by:

5.2.1

- minimum of a Master's degree in biology, chemistry, or a forensic related area with successful completion of a minimum of 12 semester credit hours (or equivalent) of a combination of undergraduate and graduate coursework. A minimum of three semester credit hours (or equivalent) of the requirement are from graduate coursework. The 12 semester credit hours cover the following subject areas:
 - biochemistry
 - genetics
 - molecular biology
 - statistics or population genetics

5.2.2

- minimum of three years of forensic human DNA laboratory experience
- successful completion of the FBI sponsored auditor training within one year of appointment

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DNA: Personnel, Continued

**Technical Lead
vacancy
contingency
plan**

In the event of a Technical Lead position vacancy, laboratory management will designate a DNA analyst within the laboratory who meets the minimum qualifications as the DNA Technical Lead.

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5.2.4.1.1

**DNA technical
staff**

Responsibilities:

- perform all aspects of forensic casework on evidentiary materials, including evaluation and preparation of evidence, DNA typing, interpretation of analytical results, preparation of case reports, and expert testimony
- serve as second readers for DNA casework, perform peer review and quality control duties including review of QC notes, and informing the supervising criminalist or Technical Lead of any QC problems

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5.4

Qualifications:

To be qualified to analyze evidentiary materials and interpret DNA results, casework analysts must have knowledge of forensic DNA testing as indicated by:

5.4.1

- minimum of a Bachelor's degree in a biological, chemical, or forensic science
- minimum of nine semester units of credited course work in biochemistry, genetics, and molecular biology (molecular genetics, recombinant DNA technology)

5.4.2

- college course work or training that covers statistics or population genetics
- six months of documented forensic human-DNA testing
- formal training in DNA analysis which includes hands-on laboratory work in a range of samples routinely encountered in forensic casework
- successful completion of competency testing in each DNA technology in which the analyst will perform casework

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DNA: Personnel, Continued

CODIS administrator

Responsibilities:

- administration of the laboratory's local CODIS network
- scheduling and documentation of the CODIS computer training of analysts
- additional CODIS administrator responsibilities can be found in the CODIS section of the DNA manual

QAS 5.3

Qualifications:

5.3.1

5.3.2.a

5.3.2.b

- The casework CODIS administrator shall meet the minimum educational requirements for DNA technical staff (See *DNA technical staff*).
 - The casework CODIS administrator is a current or previously qualified DNA analyst who has documented mixture interpretation training.
 - The casework CODIS administrator shall participate in the FBI sponsored training in CODIS software within six months of assuming the administrator duties if they have not previously attended such training.
 - The casework CODIS administrator shall successfully complete the FBI sponsored auditor training within one year of assuming the administrator duties if they have not previously attended such training.
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New employee assessment

A documented assessment of the education, training, and experience of each new DNA analyst is conducted at the time of hire by the DNA Technical Lead.

DNA personnel files

A personnel file is established for each technical staff member performing DNA analysis. Records are maintained by the DNA Technical Lead and in the Biology Unit office area. This file may include:

QAS 5.1.4

- a current curriculum vitae listing relevant education, in-service training, and other qualifications
 - documentation, in the form of transcripts or verification from the university, of the successful completion of the courses required to meet the educational requirements for performing DNA analysis
 - in-service training courses, seminars, and other continuing education
 - a current list of completed competency and proficiency tests
 - a current training plan, including plan for in-service training
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