Forensic Scientist Technical Leader (Firearms)
CS-0401-14

Introduction

This position is located in the Department of Forensic Sciences (DFS). The mission of the DFS is to provide high-quality, timely, accurate, and reliable forensic science services using best practices and best available technology, focusing on unbiased science and transparency, to enhance public safety and health.

This position works in the Firearms Examination Unit (FEU) and under the Forensic Science Laboratory Director. The Technical Leader provides expert guidance and advice, and oversees the technical aspects of the FEU analysis programs, with the specific objective of ensuring that those programs maintain best practices, technical relevancy, and compliance with accreditation requirements and statutorily imposed quality assurance standards.

Major Duties

Overssees the technical operations of the FEU laboratory and ensures that the methodologies and procedures used in performing casework are in compliance with established standards and accreditation requirements and remain appropriate and relevant in the context of emerging technologies.

Evaluates and documents approval of all validations and methods used by the laboratory and proposes new or modified analytical procedures used by scientists in the FEU.

Reviews and documents the laboratory procedures annually.

Inspects and evaluates equipment, objects, information, and work-related conditions to ensure compliance with agency prescribed operating procedures and safety standards, regulations, and guidelines to include manufacturer's specifications on computerized scientific equipment and national laboratory accreditation and quality assurance standards (QAS).

Conducts and oversees research; develops, validates, and implements new laboratory analytical procedures deemed feasible by management.

May have casework responsibilities, particularly with respect to more complex cases; performs verifications of results and technical and administrative reviews of cases; provides scientific consultations; interprets test results and develops conclusions; prepares reports; and serves as an expert witness on findings of tests/results or FEU technologies.

Reviews and approves the training, quality assurance, and proficiency testing programs in the FEU.

Reviews academic transcripts and training records for newly qualified scientists and approves their qualifications prior to independent casework analysis and documents such review.

Trains or arranges for training for the employees in methods and techniques of team building and works in team to accomplish tasks or projects, and provides or arranges for specific technical training necessary for accomplishing individual and team tasks;

Reviews internal and external FEU Audit documents and, if applicable, approves corrective action(s), and documents such review.

Maintains oversight of technical issues on current cases.
FORENSIC SCIENTIST TECHNICAL LEADER (FIREARMS)
CS-0401-14

Participates in courses, symposiums, workshops, and conferences on matters related to firearms examination as well as gunshot residue, serial number restoration, muzzle to garment distance determination and trajectory analysis. Develops and oversees scientific programs for training lab staff and stakeholders when applicable. Develops and oversees applied research programs to ensure technical relevancy and agency goals are maintained.

Assists with the search for and writes grant applications for solicitation and acquisition of funding as appropriate.

Perform other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Expert knowledge of and skill in applying Firearms and Toolmark analysis principles, techniques, methods, theories, concepts, practices, and standards.

Mastery of forensic laboratory accreditation, standards, and guidelines; and of the tools necessary to evaluate the evidence.

Ability to establish new standards and identify training needs and resource requirements for the agency.

Mastery of new analytical developments, and ability to modify processes to resolve novel, obscure, or highly controversial problems that affect the analysis.

Ability to initiate, formulate, and plan, as well as execute Firearms and Toolmark analysis.

Mastery knowledge of and skill in applying analytical and evaluative methods and techniques to conduct in-depth research of operational/program issues; to review and analyze complex reports; to develop necessary plans; and to prepare clear, in-depth reports of studies and recommendations.

Mastery research skills, interpretation, and application of a broad range of qualitative and quantitative data using a variety of diverse methods.

Expert knowledge of quality assurance and quality improvement methods and techniques; and knowledge of accreditation standards and quality processing methods that are crucial as well as beneficial to the quality assurance program.

Ability to keep up-to-date of current literature and sources of information in the field of forensics for firearm and toolmark analytical methods, including but not limited to all forms of microscopy, chemical analysis of gunshot residue and lead, and the safe handling and function of all major firearms.

SUPERVISORY CONTROLS

Works under the Forensic Scientist Supervisor (Firearms & Toolmark Analysis), who provides assignments in terms of broadly stated objectives and available resources. The incumbent independently plans and carries out assignments, interprets policies and procedures in terms of established objectives, determines the validity of methods and results, and recommends acceptance or rejection.
FORENSIC SCIENTIST TECHNICAL LEADER (FIREARMS)
CS-0401-14

The incumbent exercises independent responsibility and is held accountable for actions and findings; consults with the supervisor, other unit managers, and/or laboratory directors on unusual technical problems and best practices and keep the supervisor apprised of any controversial issues.

GUIDELINES

Guidelines include policies and procedures of DFS, including but are not limited to the standard operating procedures developed by the Firearms Examination Unit through the validation of analytical procedures; governing laws and regulations of the District and Federal government, Mayor’s Orders, instructions, and the Deputy Mayor’s policy and priorities. Incumbent exercises sound judgement in choosing, interpreting, or adapting available standards and guidelines to specific issues or subject. Many situations are not covered by the guidelines, and therefore, require interpretation and adaption.

COMPLEXITY

Adaptability and flexibility is required in order to adhere to protocols is essential; develops and validates criteria for testing parameters with new methods and equipment as well as training team members to perform the same. Maintains quality control measures and prepares detailed documentation of test results. Provides appropriate leadership in the application of procedures; and identifies problems and anticipates discrepancies in the results. The work requires assessing, evaluating, modifying, and adapting various methods to satisfy requirements and to arrive at sound conclusions.

Decisions regarding what needs to be done include major areas of uncertainty in approach, methodology, or interpretations and evaluation processes that result from such elements as continuing changes in program, technological developments, unknown phenomenon, or conflicting requirements.

SCOPE AND EFFECT

The work involves performing and leading a team in isolating and defining unknown conditions, resolving critical problems, or developing new theories, technical adequacy, and effectiveness of submitted evidence. Conducts and assists team members when required to perform analysis, including collecting appropriate exhibits to prepare for examination/testing; and prepares documentation regarding findings and analysis that are instrumental in preparing results of the tests; and identifies problems that may alter the materials; and ensures that all documentation is in the appropriate order for court cases and/or final discovery.

The result of the work may affect other experts and/or the department’s credibility, adequacy, accuracy, and effectiveness of the field investigations, and laboratory tests, and ensures its relevancy to each to assist with closure. The results are binding and affect judicial proceedings.

PERSONAL CONTACTS

Contacts are with DFS officials, laboratory personnel, consultants, Federal and District regulatory agencies, the general public, law enforcement, and investigators, and other stakeholders.
FORENSIC SCIENTIST TECHNICAL LEADER (FIREARMS)
CS-0401-14

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, stretching etc. Occasionally carry items weighing up to 50 pounds, such as bags and/or boxes of evidence, portable computers, peripherals, and other similar materials. Incumbent must possess sufficient manual dexterity to manipulate and operate laboratory equipment; must be able to visually distinguish color, shape, size, number and picture resolution quality; must be able to withstand exposure to disagreeable elements such as blood that may pose a health risk.

WORK ENVIRONMENT

The work is performed in an office and laboratory. The office setting is when preparing documentation, the laboratory setting is during the testing and analysis phase.

The incumbent may be exposed to hazardous materials, toxic substances, blood borne pathogens, and electric current and electrostatic discharge and is required to follow safe laboratory practices and wear protective clothing, including facial masks, safety glasses, gloves, ear protection, etc.

SPECIAL REQUIREMENTS

This position duty station will be housed within the Consolidated Forensic Laboratory (CPL) which is a protection-sensitive facility. As such, incumbents of this position shall be subject to criminal background checks, background investigations, and mandatory drug and alcohol testing, as applicable. Due to the handling of primary evidence, the applicant will be required to submit a buccal swab for the purposes of the DNA Quality Control database for the DFS.

The nature of the DFS mission necessarily involves the potential risks associated with biological or chemical hazards, including morgue functions. Although contact with these functions are intended to be minimal, the risks are nevertheless possible; training to recognize, address, and mitigate these risks is required as is dealing with potentially personally difficult topics, such as crime, death, and disease.

The nature of the work in the Firearms Examination Unit requires the safe handling and processing of firearms within the unit. Mastery of all standard firearms safety processes must be constantly demonstrated and reinforced.

May be required to work weekends and holidays.

EDUCATION AND EXPERIENCE

Required: Must be a graduate of biological sciences, forensic science or related discipline appropriate to the position from an accredited college or university and at least one (1) year of specialized experience equivalent to the grade 13 level.

Specialized experience is experience which is directly related to the position and has equipped the individual with the knowledge, skills, and abilities to successfully perform the duties of the position including, but are not limited to, overseeing the technical operations of the FEU laboratory and ensuring that the methodologies and procedures used in performing casework are in compliance with established standards and accreditation requirements and remain appropriate and relevant in the context of emerging
FORENSIC SCIENTIST TECHNICAL LEADER (FIREARMS)
CS-0401-14

technologies; reviewing internal and external FEU Audit documents and, if applicable, approves corrective action(s);

OR

an equivalent combination of professional education, training, and experience.

Preferred: Master’s degree in biology, chemistry, or forensic science-related area from an accredited college or university.

LICENSE/CERTIFICATIONS

Incumbent is required to successfully complete competency testing prior to beginning any technical work on casework.