FORENSIC SCIENTIST (FINGERPRINT ANALYST)
CS-401-12

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.

The position is responsible for forensic fingerprint analysis, which includes aspects of casework, accreditation, quality assurance and control programs within the Forensic Science Laboratory (FSL).

MAJOR DUTIES

Serves as a Fingerprint Analyst in the Latent Fingerprint Unit (LFU) of the Forensic Science Laboratory, and is responsible for conducting complex examinations of latent print evidence submitted to the lab.

Performs evaluations of latent fingerprints to determine suitability for entry into the Automated Fingerprint Identification System (AFIS)

Compares suitable latent fingerprints to known fingerprints and palm prints, submitted through requests or retrieved from AFIS candidate list, to determine identification or exclusion of individuals.

Prepares reports and documents all issues relating to a case to accurately convey results and conclusions to the customer.

Presents testimony in complicated court cases and effectively communicate case conclusions.

Tracks monthly case processing statistics using standard metrics in order to monitor productivity of the overall unit. Using feedback and data from such metrics, establishes prioritization and productivity goals.

Works within the Latent Fingerprint Unit to coordinate case processing with other forensic units within the DFS, to share case detail information and coordinate all forensic results from a single case to ensure uniformity and communication of probative results.

Occasionally, develops prints from porous, non-porous, and semi-porous surfaces, which require special skill in selecting and applying the appropriate chemical and physical developers

Photographs latent fingerprint evidence that has been developed on a variety of surfaces to develop a quality digital image to be used for comparison purposes and/or AFIS entry.

Assists in the development of presentations, instructs and lectures to various classes, i.e., forensic scientists, investigators and law enforcement officers, in the techniques and methods of fingerprint analysis.

Uses advanced methods of latent fingerprint development and special photographic and digital

techniques, i.e. lighting, filters and Adobe Photoshop to enhance friction ridge evidence.

Utilizes verbal and written instructions to perform various techniques that aids and assists the functions of the Forensic Science Laboratory; and to document and maintain detailed logs and records of materials, reagents, equipment, and instruments.

Works with supervisor and assists working groups in developing and modifying SOPs to better serve the unit and ensures laboratory and accreditation standards are met.

Participates in a structured training program that pertains to the quality control/quality assurance programs, proficiency testing and safety programs; and attends relevant seminars, lectures and other training and development activities.

Utilizes computer software to analyze results of quality and performance checks in order to perform quality control measures and keeps up-to-date on current studies, pamphlets, journals, and books for use in assisting in devising new methods and tests.

Projects a professional image while representing the FSL and DFS; and exemplifies Department values, both on and off duty.

Performs other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Advanced knowledge of the following forensic fingerprint analysis terminology is highly desirable for this position: Knowledge of the Henry System of fingerprint classification as extended and modified; ACE-V Methodology; Extensive knowledge in SWGFAST and NIST standards relating to fingerprint analysis; High-level of experience encoding and searching prints in AFIS; and Skill with the enhancement of latent fingerprints using Adobe Photoshop.

Advanced knowledge of and skill and ability gained through extensive work experience or training in applying theories, principles, concepts, methodology and practices of analytical chemistry, physical science, or biology or related field to the work that is sufficient to perform mathematical and statistical analyses that relate to analytical laboratory work.
Knowledge of and ability to apply D.C. and Federal laws, codes and regulations pertaining to forensic science; and the ability to follow training on how to apply ISO 17025 accreditation standards.

Advanced knowledge of or experience in quality control procedures and accreditation standards; proper procedures and standard laboratory rules and safety precautions regarding chemicals, toxins and biohazards; and evidence collection and preservation procedures.

Knowledge of and hands-on experience or classroom training related to equipment and supplies used in a forensic laboratory including specialized scientific equipment, instrumentation and software; current developments, literature and other sources of information related to the assignment; and the ability to solve problems or respond to technical issues in regards to quality control measures.

Experience with or the ability to apply theoretical and analytical principles of natural and physical sciences, including organic, inorganic, biochemistry, physical chemistry, and other applicable fields; apply quality methods and techniques used in the forensic laboratory, including laboratory testing procedures.
Experience or ability to work extensively with chemicals and biohazards in a safe manner; and the ability

to perform a variety of quality and performance checks and analyses; and ability to recognize anomalies, prepare hypotheses, and take appropriate action; prepare and maintain accurate records/data and prepare clear and concise summaries and memoranda.

Demonstrated skill and ability to use a PC and software packages (e.g., Microsoft Word, Excel, Access and Power Point, etc.) and software applicable to various reporting systems, particularly laboratory information management systems (LIMS), inventory control, and sequence analysis software.

Excellent oral and written communications skills sufficient to prepare and present pertinent information and maintain effective relationships.

Exercises discretion and sound judgment to determine proper courses of action and assesses and evaluates a variety of situations, problems, conditions or questions.

Ability to work safely without presenting a threat to self or others is essential.

SUPERVISORY CONTROLS

Works under the supervision of the supervisor, team leader or designated authority, who initially provides direction on the objectives, priorities, objectives, and/or deadline related to work previously performed and therefore covered by precedent. Plans and carries out procedural and technical processes as required, seeks assistance as needed, and independently coordinates work efforts with others when necessary. Exercises initiative while developing solutions to common technical and procedural problems such as changes in priorities, minor need for additional equipment or other such comparable issues. New or unusual assignments may be performed by utilizing personal experience, general background information, including advice on the location of reference material to use.

Receives administrative direction or decision from higher authority on the course of action to follow when encountering significant technical or procedural problems with the work.

The work is normally reviewed in the form of an assessment as to how to resolve technical and related administrative problems encountered, e.g., success in meeting deadlines, developing solutions to problems encountered, executing the work in accordance with agency policy and accepted scientific practices, and administering operations which are both technically sound and complete in terms of such criteria as project objectives, and established requirements of FSL. The review may also have emphasizes on the quality of judgment used by the incumbent to resolve technical and administrative issues.

GUIDELINES

Guidelines include policies and procedures of DFS, including but not limited to the standard operating procedures developed by the Forensic Science Laboratory Units through the validation of analytical procedures; governing laws and regulations of the District and Federal government, testing regulations manuals, quality assurance and accreditation standards, and scientific literature, precedent cases, technical references, forensic techniques and literature, catalogs and handbooks, internal protocols, Mayor's Orders, instructions, etc.

The guidelines are usually applicable, however, the incumbent may be required to seek guidance/direction when applying them to specific work situations/cases that may or may not be directly related to the core problems of the assignments, have gaps in specificity or not completely applicable.

Judgment is exercised independently when interpreting or adapting available standards and guidelines,

however, guidelines are utilized as the basis for making procedural deviations from established administrative and/or technical methods, the incumbent must be able to understand the intent of the guidelines and react accordingly. The incumbent is encouraged to analyze results and recommend changes.

COMPLEXITY

Adaptability and flexibility is required in order to adhere to protocol is essential; develops and validates criteria for testing parameters with new methods and equipment as well as assists others to perform the same. Maintains quality control measures and prepares detailed documentation of test results. Provides appropriate knowledge 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 interpretation and evaluation processes that result from such elements as continuing changes in program, technological developments, unknown phenomena, or conflicting requirements.

SCOPE AND EFFECT

The work involves performing special assignments by isolating and defining unknown conditions, resolving critical problems, or developing new theories, technical adequacy, and effectiveness of submitted evidence. Assists Specialist when required to perform analysis including collecting appropriate exhibits to prepare for examination/testing; and preparing documentation regarding findings and analysis that are instrumental in preparing results of the tests; and identifying 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 the appropriate closure. The results are also binding and affect judicial proceedings

PERSONAL CONTACTS

Contacts are with DFS officials, employees, laboratory personnel, consultants, Federal and District regulatory agencies, the general public, law enforcement, and investigators, and other stakeholders.

PURPOSE OF CONTACTS

Contacts are for the purpose of influencing and motiving persons or groups in order to obtain the desired effect, such as gaining compliance with established policies and regulations by persuasion or exchanging and gathering information, ensuring the orderly flow of work as it pertains to maintaining the chain-of-custody of collected evidence, and storage, and to prepare detailed reports.

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, stretching etc. The incumbent occasionally carries items weighing up to fifty (50) pounds, such as bags and/or boxes of chemicals, 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; and must be able to withstand

exposure to disagreeable elements such as malodorous and/or decomposing samples/bodies, blood, bodily fluids, etc., that may pose a health risk.

WORK ENVIRONMENT

The work is performed in an office and laboratory. The office setting is when preparing documentation, and 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.

OTHER SIGNIFICANT FACTS

The nature of the work in the Forensic Science Laboratory requires safe handling and processing of chemicals and reagents within the laboratory, and standard health and safety processes must be constantly demonstrated and reinforced.

Bachelor's degree from an accredited college or university in science; or a higher degree and/or industry certification favorably considered.

May be required to work weekends and holidays.

SPECIAL REQUIREMENTS

This position's duty station will be housed within the Consolidated Forensic Laboratory (CFL) 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 is 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.