

FORENSIC SCIENTIST (II)
CS-401-12

INTRODUCTION

This position is located in the Office of the Deputy Mayor for Public Safety and Justice (ODMPSJ) 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.

Employees are assigned to one of the specialty disciplines in forensic science (e.g., forensic biology, materials science, firearm and tool mark analysis, etc.).

MAJOR DUTIES

Performs laboratory analyses of physical evidence in one or more of the specialty disciplines of the forensic laboratory; regularly demonstrates proficiency in assigned forensic specialty; and participates in and completes externally administered proficiency tests.

Collects, preserves, and maintains evidence in the forensic laboratory to prevent contamination; properly maintains and documents chain-of-custody.

Ensures accuracy of information received; prepares detailed notes to properly document analytical results and support conclusions; interprets and analyzes test results; and maintains appropriate case file documentation.

Prepares comprehensive scientific reports, declarations, and affidavits, and collects statistical data.

Prepares a variety of reagents, solutions, standards, and controls using accepted forensic laboratory practices.

Researches technical journals, textbooks, and forensic science manuals to determine best methods of performing analytical tests; and participates in the development and validation of new methods and/or instrumentation.

Operates, calibrates, troubleshoots, and performs minor repairs and preventive maintenance on laboratory equipment and analytical instruments.

Coordinates work activities with other sections within the laboratory; and provides consultation regarding analytical results and investigative leads.

Processes evidence in the laboratory and prepares evidence for presentation in court; meets with attorneys, investigators or other law enforcement personnel regarding the interpretation of examinations conducted.

Reviews other scientist's data and reports using technical documents and/or administrative review protocols.

Projects a professional image when representing the Department and exemplifies the Department values, both on and off duty. Establishes and maintains effective working relationships; e.g., law enforcement personnel and the criminal justice community.

Operate specialized software on multiple computer platforms.

Testifies in court as an expert witness in legal proceedings.

Performs other related duties as assigned.

KNOWLEDGE REQUIRED BY THE POSITION

Comprehensive knowledge of and skill in applying a wide range of 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 that relates to analytical laboratory work.

Knowledge of quality assurance 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 equipment and supplies used in a forensic laboratory including specialized scientific equipment, instrumentation and software; recent developments, current literature and sources of information related to the assigned forensic specialty.

Ability to apply theoretical and analytical principles of natural and physical sciences, including organic, inorganic, biochemistry, physical chemistry, and other applicable fields; apply operational methods and techniques of the forensic laboratory, including laboratory testing procedures.

Ability to modify analytical methods, to solve problems or respond to complex technical issues on materials subject to analysis in the specialty area.

Knowledge of and ability to apply Federal, state, and local laws, codes and regulations pertaining to forensic science; apply evidence collection and preservation procedures, including proper evidence handling and chain-of-custody.

Ability to apply various forensic software applications; and skill and ability to use a personal computer to prepare, store, and retrieve data and knowledge of software affiliated with the assignment.

Ability to work extensively with chemicals and biohazards in a safe manner; and perform a variety of scientific tests and analyses; recognize anomalies, formulate hypotheses, and take appropriate action; prepare and maintain accurate records/data and prepare clear and concise reports and memoranda.

Ability to use and operate forensic laboratory equipment; interpret and explain Laboratory and Department policies and procedures.

Ability to testify effectively in court as an expert witness in legal proceedings.

SUPERVISORY CONTROLS

Works under the administrative direction of the supervisor who outlines objectives and available resources. The supervisor discusses timeframes and the scope and nature of the assignment including the possible stages. The incumbent independently plans and carries out assignments, and interprets policies and procedures in terms of established objectives, keeps supervisor informed of progress on potentially controversial matters.

Completed assignments are reviewed for conformance to guidelines, feasibility, soundness of overall approach and the effectiveness of meeting objectives, deadlines, and expected results and adherence to requirements.

GUIDELINES

Guidelines include policy and procedures of DFS; governing laws, regulations and protocol of the District and Federal Government, testing regulations manuals, quality assurance and accreditation standards, scientific literature, and the FBI Quality Assurance Standards for DNA Testing Laboratories and for DNA Databasing Laboratories (current revision). Also, precedent cases, technical references, forensic techniques and literature, catalogs and handbooks, internal protocols and instructions, etc. These guides are normally applicable, but may require the incumbent to exercise judgment when applying them to specific work situations/cases that may not be covered.

Sound judgment is utilized when interpreting and identifying the best practices/methods to use when adapting the guides; and utilizes initiative and resourcefulness in deviating from traditional methods or researching trends and patterns to develop new methods, criteria, or proposed new policies.

COMPLEXITY

Work involves performing case related examinations on samples submitted for forensic analysis. Maintains quality control measures and prepares detailed documentation of test results. Assignments require the application of procedures; and require identifying problems and anticipating discrepancies in the results. The work requires modification and adaptation of various methods to satisfy requirements and to arrive at sound conclusions.

Adaptability and flexibility is required in order to adhere to protocols are essential; and contends with the absence of criteria; and with new methods and equipment. Exercises discretion and sound judgment in determining proper courses of action from personal experience and must be able to assess and evaluate a variety of situations, problems, conditions, or questions.

SCOPE AND EFFECT

Work efforts affect the scientific adequacy, accuracy and effectiveness of submitted evidence. Conducts scientific investigations including collecting the appropriate samples to prepare for examination/testing; and prepares documentation regarding findings and analysis that is instrumental in preparing the results

of the tests; and identifies problems that may alter collected evidence; insures that all documentation is in the appropriate order for court cases and/or final discovery.

The results of the work affects the department's credibility adequacy, accuracy and effectiveness of the field investigations, laboratory tests, and ensures it relevancy to the case to assist with closure. The results are also binding and affect the judicial proceedings.

PERSONAL CONTACTS

Personal contacts are with staff of the Laboratory, other crime laboratories, criminal justice community (law enforcement personnel, attorneys, etc.) professional organizations and service users.

PURPOSE OF CONTACTS

Contacts are for the purpose of exchanging factual information, collecting/gathering physical evidence and processing the crime scene, exchanging information, ensuring the orderly flow of work as it pertains to the crime scene. Works cooperatively with the public and other City employees; and work safely without presenting a risk to self or others.

PHYSICAL DEMANDS

Work is sedentary, however, some work requires periods of walking, standing, bending, climbing, or driving a motor vehicle. Also, some work requires sufficient personal agility to collect and process evidence at a variety of crime scenes. Occasionally carry items weighing up to 50 pounds, such as bags and/or boxes of evidence, small instruments or samples, 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 malodorous and/or decomposing samples, blood, bodily fluids, etc.

WORK ENVIRONMENT

The work environment includes office setting, laboratory conditions, training facilities, and courtrooms. The incumbent may be exposed to hazardous materials, toxic substances, and blood borne pathogens and is required to follow safe laboratory practices and wear protective clothing, including facial masks, safety glasses, gloves, etc.

OTHER SIGNIFICANT FACTS

Competency/Proficiency Testing.

Incumbents are required to successfully complete competency testing prior to beginning casework in a specialty discipline or sub-discipline; and successfully complete annual proficiency testing as required by accreditation standards.

May be required to attend training at an out-of-state facility for an extended period of time, up to six consecutive months within the year.

Must possess and maintain a valid operator driver's license.

The work is subject to rotating shift, split shift, weekends, and holidays.

Bachelor's degree from an accredited college or university in a physical or natural science or a field related to a forensic specialty area.

In addition to the above listed education requirement, individuals assigned to the Forensic Biology Unit are required to meet the educational standards for an analyst detailed in the current revision of the Quality Assurance Standards for Forensic DNA Testing Laboratories/Convicted Offender DNA Databasing Laboratories issued by the FBI Laboratory Director.

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. All incumbents will also be required to submit a buccal swab as a DNA reference sample for the purposes of internal Quality Control.

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.