

City of Fort Worth, Texas

Job Description

Classification Title	Forensic Scientist I		
Job Code:	PR3050	Job Family:	Professional
Pay Grade	608	Date Reviewed:	09/24/19
FLSA Status	Exempt	Date Revised:	

GENERAL SUMMARY

Under close supervision, performs a variety of scientific laboratory analyses on physical evidence, writes scientific examination reports, prepares findings for court presentations, testifies in court, and discusses laboratory results with officers and attorneys. Works under close supervision from more experienced personnel and subject matter experts. Responsible for performing additional duties as assigned.

ESSENTIAL DUTIES & RESPONSIBILITIES

The intent of this job description is to provide a representative summary of the major duties and responsibilities performed by incumbents of this job. Incumbents may be requested to perform job-related tasks other than those specifically presented in this description.

1. Performs routine forensic work conducting casework related to the investigation of crimes. Receives training in higher skill level duties and performs forensic examinations under close supervision.
2. Reads relevant materials and attends training sessions in all aspects of forensic laboratory practices.
3. Processes crime scene evidence with forensic detail; analyzes and compares evidence to known standards; and, enters findings into appropriate forensic database.
4. Supports the law enforcement community in the investigation of crimes by receiving and maintaining forensic chain of custody; prepares reports that documents findings; provides expert opinions in scientific specialization to investigators; and provides expert witness testimony regarding forensic findings in a court of law.
5. Examines evidence and performs comparisons between known and unknown items.
6. Utilizes forensic databases to generate potential investigative leads.
7. Performs work in accordance with established departmental policies and procedures, federal/state guidelines, and accreditation standards.
8. Works with chemicals and other hazardous materials. As training progresses, scientists are expected to exercise independence and good judgment.
9. Performs proficiency testing and quality control and maintenance of instrumentation.
10. Adheres to assigned work schedule as outlined in the Department and City attendance policies and procedures; ensures all behaviors comply with the City's Personnel Rules and Regulations.

11. Performs other duties as assigned.

When assigned to the Biology Unit:

1. Performs serological and/or deoxyribonucleic acid (DNA) analysis on items of evidence related to police investigations.
2. Conducts visual examination, microscopic examination and/or serological testing on a variety of evidence items to examine for the presence of blood, semen, saliva, hair, and other potential biological material; preparation of samples for DNA analysis, DNA extraction using manual or robotic techniques, quantitation using Real Time Polymerase Chain Reaction (PCR) technology, PCR for the amplification of DNA extracts using a variety of DNA typing kits and DNA typing using capillary electrophoresis.
3. Interprets single-source DNA typing results to include making comparisons to known profiles, making determinations about the inclusion or exclusion of contributors and making determinations about profiles to be entered into the Combined DNA Index System (CODIS).
4. Utilizes statistical databases to make determinations about the frequency of occurrence of profiles developed in the laboratory.
5. Uses judgement in determining tests performed and items tested.
6. May also design and conduct experiments related to specific case issues.

When assigned to the Chemistry Unit:

1. Performs forensic examinations of physical evidence for the identification of controlled substances and blood alcohol concentration analysis.
2. Performs macroscopic examinations, microscopic examinations, weight measurements, preliminary color tests, instrumental tests, such as gas chromatography/mass spectrometry (GC/MS) and infrared spectrophotometry (FTIR/ATR).
3. Provides support for the K9 units and the field drug testing program including training of police personnel.

When assigned to the Firearm and Toolmark Unit:

1. Performs forensic examinations of physical evidence related to firearms and toolmark identification.
2. Performs examinations of firearms, ammunition, ammunition components, tools, toolmarks and other firearms or tool related evidence.

3. May perform examinations on clothing, bedding and other surfaces for the presence of gunshot residues or powder patterns, muzzle to target distance determinations, chemical restoration of obliterated serial numbers.
4. May design and conduct experiments related to specific case issues.
5. Enters and searches data in the National Integrated Ballistic Information Network (NIBIN).

KNOWLEDGE, SKILLS & ABILITIES

- **Knowledge of:**

- Theoretical and analytical principles of natural, physical and forensic sciences, including organic, inorganic, chemistry, biology and/or other applicable fields and sub-disciplines.
- Mathematic principles and statistics.
- Laboratory testing procedures and methods.
- Standard laboratory procedures and safety precautions regarding chemicals, toxins and biological substances.
- Evidence collection, preservation, and documentation procedures.
- Principles and procedures used to offer expert testimony in court.
- Federal, State and local laws, codes and regulations pertaining to forensic science.
- Policies, procedures, rules and regulations governing a forensic laboratory.
- Operational methods and techniques in the use of forensic laboratory instrumentation.
- Principles and procedures of record keeping.
- Principles of formal writing and basic report preparation.
- Accreditation guidelines and the laboratory's quality management system.

- **Skill in:**

- Analysis and problem solving.
- Interpersonal relations.
- Computers and applicable software.
- Public speaking.

- **Ability to:**

- Communicate clearly and effectively, both orally and in writing.
- Perform a variety of scientific laboratory analyses on physical evidence to provide scientific consultation.
- Determine proper testing techniques for each item of evidence.
- Utilize biology, chemistry, physics and molecular biology theories.
- Perform chemical and physical analysis and macroscopic/microscopic examinations.
- Work extensively with chemical and biological hazards in a safe manner.
- Prepare detailed reports on laboratory test results and examinations.
- Testify in court as an expert witness.
- Follow standard operating procedures.

- Analyze evidentiary data and form a defensible opinion or conclusion of observations.
- Establish and maintain effective working relationships.
- Work effectively as part of a team.
- Follow health and safety guidelines.

MINIMUM JOB REQUIREMENTS

If assigned to the Chemistry or Firearm and Toolmark Units:

Bachelor's or advanced degree in chemical, physical, biological science, chemical engineering, or forensic science from an accredited university.

If assigned to the Biology Unit:

Bachelor's or advanced degree in a biology-, chemistry-, or forensic science-related area with successfully completed coursework (undergraduate or graduate level) in biochemistry, genetics, molecular biology, and statistics and/or population genetics. The scientist shall have a minimum of 9 semester hours (or the equivalent) that cover the subject areas of biochemistry, genetics, and molecular biology.

Must also meet additional specific coursework requirements as required by the Texas Forensic Science Commission, as well as the FBI Quality Assurance Standards if assigned to the Biology Unit. No experience required.

OTHER REQUIREMENTS

Ability to obtain a valid Texas driver's license within six (6) months from hire date.

Provide a buccal DNA sample after hire date.

Must obtain a Texas Forensic Analyst License within one (1) year of hire date.

Ability to comply with all Texas Forensic Science Commission requirements.

WORKING CONDITIONS

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Depending on assignment, positions in this class typically require touching, talking, hearing, seeing, grasping, standing, walking and repetitive motions. Works with hazardous materials and chemicals. May be exposed to hazardous and/or dangerous work environments.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Light Work – Depending on assignment, positions in this class typically exert up to 50 pounds of force occasionally, up to 20 pounds of force frequently, and/or up to 20 pounds of force constantly having to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for the Sedentary Work category and the worker sits most of the time, the job is rated Light Work.