

## City of Fort Worth, Texas Job Description

<b>Classification Title</b>	Forensic Scientist II		
<b>Job Code:</b>	PR1570	<b>Job Family:</b>	Professional
<b>Pay Grade</b>	609	<b>Date Created:</b>	07/10/2015
<b>FLSA Status</b>	Exempt	<b>Date Revised:</b>	02/17/2020

### GENERAL SUMMARY

Under general supervision, performs a variety of scientific laboratory analyses on physical evidence to provide scientific consultation; interprets test results and forms conclusions; writes scientific examination reports; testifies as an expert witness in court.

### ESSENTIAL DUTIES & RESPONSIBILITIES

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

1. Performs all essential duties and responsibilities and Unit-specific requirements of a Forensic Scientist I.
2. Collects, preserves and maintains integrity of evidence in the laboratory; examines evidence; accurately documents description and condition of items; maintains chain of custody for evidence.
3. Performs technical reviews, as assigned.
4. Determines proper testing techniques for each item of evidence.
5. Performs a series of complex analytical examinations utilizing biology, chemistry, physics and/or molecular biology theories, where applicable.
6. Performs chemical and physical analyses and/or microscopic examinations in the identification and comparison of evidence.
7. Supports national, state and local databases where applicable (e.g. NIBIN, CODIS, NFLIS, etc.).
8. Interprets examination results and forms a basis for expert opinion for the purpose of providing factual conclusions relating to evidence collected in a criminal investigation.
9. Ensures conformance to good laboratory practice and quality standards; maintains a healthy and safe working environment and proper disposal of biological, chemical and other hazardous waste; performs maintenance and repair of laboratory equipment.
10. Maintains laboratory supplies and prepares reagents.
11. Prepares detailed reports on laboratory test results and examinations performed; forms conclusions based on test results.
12. Consults with and/or provides training to detectives, outside agencies and prosecutors to provide scientific information relevant to the investigation and analysis of evidence.
13. Testifies in court as an expert witness; explains laboratory procedures; presents and defends laboratory findings; refutes or corroborates other expert testimony;

assembles diagrams, charts, photographs and various other materials to support conclusions reached in laboratory testing.

14. 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.
15. Performs other duties as assigned.

**When Assigned to the Biology Unit:**

1. Examines evidence for the presence of biological material and, when necessary, collects trace material.
2. Performs serological and DNA testing.
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. Performs serology technical reviews.
6. Determines suitability for entry into CODIS and complies with the FBI Quality Assurance Standards for Forensic DNA Testing Laboratories.

**When Assigned to the Chemistry Unit:**

1. Performs qualitative analyses of controlled substances, pharmaceutical preparations, and plant materials utilizing analytical techniques such as gas chromatography, mass spectroscopy, and infrared spectroscopy.
2. Performs toxicological analysis for the determination of blood alcohol concentration using headspace analysis.

**When Assigned to the Firearm and Toolmark Unit:**

1. Examines of all types of firearms and firearm-related evidence, including firearm functionality testing, microscopic examination and comparison of ammunition components such as bullets and cartridge cases, serial number restoration testing, non-firearm toolmark examinations, muzzle-to-target distance determination examinations and NIBIN entry.

**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.
    - Troubleshooting.
    - 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 and at least three (3) years of relevant independent discipline-specific casework experience as a qualified Forensic Scientist I (or equivalent).

### **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 six (6) months from 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, stooping, kneeling, crouching, reaching, 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.