

City of Fort Worth, Texas Job Description

Classification Title	Microbiologist		
Job Code:	PR5030	Job Family:	Professional
Pay Grade	512	Date Reviewed:	07/14/15
FLSA Status	Nonexempt	Date Revised:	10/07/23

GENERAL SUMMARY

Performs a variety of laboratory functions within the Water Department. Conducts microbiological and bacteriological tests and analysis to detect and identify harmful bacteria or other microorganisms; records and processes tests results as appropriate; and ensures compliance with federal and state laws regarding standards of quality, purity, and safety.

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. Collects and prepares samples for analysis; analyzes water, wastewater and solid matrices for chemical and microbiological analysis; interprets and documents steps for chemical and microbiological analysis; and stores or transports samples, as required.
2. Maintains safety of environmental hazards in compliance with local, state and federal regulations, including chemical and sample custody, storage and disposal.
3. Reviews and interprets peer generated data for accuracy and completeness. Ensures document traceability is accurately reflected in steps and processes.
4. Assists in ordering and maintaining laboratory stock of glassware, chemicals, and related supplies; washes glassware; and sterilizes equipment, as appropriate.
5. Prepares daily, weekly, and monthly reports as assigned by supervisory staff or regulatory agencies. Files and distributes results of tests.
6. Composes and edits laboratory operating procedures to conform to current practices, methods and NELAP criteria.
7. Isolates and cultures bacteria and microorganisms; prepares and titrates antigens with standard controls; performs gram staining procedures; and examines cultures to determine characteristics and interpret results.
8. Prepares biological media, solutions, reagents, and antigens; and operates an autoclave, microscope and related equipment.
9. Participates in internal and external audits. Facilitates auditor with requested information and documentation; and submits proficiency testing of samples.

10. Troubleshoots and repairs equipment, as needed.
11. Attends quality control and safety meetings; participates in training on new and upcoming testing; remains current with events affecting water usage; and stays abreast of new technology.
12. Performs other related duties as required.
13. 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.

KNOWLEDGE, SKILLS & ABILITIES

- **Knowledge of:**

- Principles and practices of microbiology, bacteriology and chemistry, including immunology and hematology.
- Milk, food and water microbiology.
- Isolation, inoculation, and culturing of bacteria.
- Sampling and laboratory testing procedures and methods.
- Standard chemical, serological, bacteriological tests and procedures.
- Intricate laboratory equipment and instrumentation utilized for biological testing.
- Standard scientific laboratory methods and equipment.
- Adjustment and operation of standard equipment or instrumentation use in chemical and laboratory tests.
- Pertinent federal, state and local laws, codes, and regulations.
- Regulatory methods and procedures.
- Standard Operating Procedures.

- **Skill in:**

- Research and analysis.
- Mathematics.
- Organization and time management.
- Laboratory safety.
- Computers and applicable software.
- Analytical thinking.

- **Ability to:**

- Communicate clearly and effectively, both orally and in writing.
- Perform laboratory examinations according to prescribed procedures and regulations.
- Analyze and interpret test results; report results accurately and properly.
- Properly handle toxic and hazardous wastes.
- Assemble, calibrate, and maintain equipment used in laboratory tests.
- Order and maintain glassware, chemicals, and related supplies; wash glassware as appropriate.
- Prepare documents for developing testing and analytical requirements.
- Interpret and explain City industrial waste policies and procedures.
- Prepare clear and concise reports.
- Observe discrepancies in analytical results and perform corrections.

- Use computer workstations and software for laboratory instrumentation, sample tracking and report generation.
- Establish and maintain effective working relationships.

MINIMUM JOB REQUIREMENTS

Bachelor's degree from an accredited college or university with major course work in Microbiology, Biology, Medical technology or a related field and two years of responsible bacteriological laboratory experience.

OTHER REQUIREMENTS

Valid Texas driver's license.

Possession of Texas Department of Health Bureau of Laboratories Certification or ability to obtain within one (1) year of employment.

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, repetitive motions, climbing, balancing, pushing, pulling and lifting; depending on assignment. Incumbents may be exposed to moving mechanical parts, odors, dusts, poor ventilation, chemicals, oils, extreme temperatures, inadequate lighting, intense noises, gases and workspace restrictions.

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 20 pounds of force occasionally, up to 10 pounds of force frequently, and/or a negligible amount 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.