

City of Fort Worth, Texas

Job Description

Classification Title	Senior Microbiologist		
Job Code:	PR2470	Job Family:	Professional
Pay Grade	610	Date Reviewed:	07/12/2015
FLSA Status	Exempt	Date Revised:	02/03/2025

GENERAL SUMMARY

Leads, assigns, reviews, and participates in laboratory activities and functions related to microbiology and the complex bacteriological testing of water purification, wastewater treatment, and environmental monitoring programs; ensures work quality and adherence to established policies and procedures; and performs the more technical and complex tasks related to assigned microbiological tasks.

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. Supervises staff, which includes prioritizing and assigning work; conducting performance evaluations; ensuring staff is trained; ensuring employees follow policies and procedures; maintaining a healthy and safe working environment; and, making hiring, termination, and disciplinary decisions or recommendations.
2. Plans, prioritizes, assigns, monitors, and participates in the collection and preparation of water and wastewater samples for analysis; provides technical and analytical support related to laboratory techniques and interpretation of data; ensures laboratory compliance with local, state, and federal laws, rules and regulations.
3. Performs bacteriological and physical testing for parasites, viruses, and related bacteria threatening water purification and environmental control programs; tests sludge samples for membrane filtration; reviews data from completed analyses; records and reports results accurately and in accordance with established procedures.
4. Participates in the development of policies and procedures related to laboratory testing and operations; monitors work activities to ensure compliance with established quality control and quality assurance policies and procedures as well as standard operating procedures.
5. Oversees the ordering and maintenance of laboratory stock including glassware, chemicals, and related supplies; washes glassware and sterilizes equipment as appropriate.
6. Prepares daily, weekly, and monthly reports as assigned by management staff or regulatory agencies; maintains records of bacteriological sampling and analysis.
7. Performs the more technical and complex laboratory tasks including review of maintenance records on equipment, and inspection of assigned laboratory area.

8. Prepares biological media, solutions, reagents, and antigens; operates an autoclave; oversees the more complex biological laboratory testing.
9. Assists in planning, coordinating, and reviewing the work plan; for assigned laboratory staff; monitors work activities; reviews and evaluates work products, methods and procedures.
10. Installs, calibrates and validates new laboratory equipment; troubleshoots and repairs faulty laboratory equipment.
11. Performs other related duties as required.
12. 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 and bacteriology.
- Sampling and laboratory testing procedures and methods.
- Standard chemical, serological, bacteriological tests and procedures.
- Intricate laboratory equipment and instrumentation utilized for biological testing.
- Principles of training and monitoring lower level personnel.
- Standard scientific laboratory methods and equipment.
- Adjustment and operation of standard equipment or instrumentation use in chemical and laboratory tests.
- The National Environmental Laboratory Accreditation Program (NELAP).
- The NELAC Institute (TNI) standards.
- Procurement process.
- Pertinent federal, state and local laws, codes, and regulations.

- **Skill in:**

- Data analysis and problem solving.
- Personnel management.
- Planning and organizing.
- Using computers and related software.

- **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.
- Use computer workstations and software for laboratory instrumentation, sample tracking and report generation.
- Assist in supervising and organizing the work of laboratory personnel.
- Participate in training lower level personnel.
- 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.
- Assist in supervising, directing, and coordinating the work of subordinate employees.
- Interpret and explain City industrial waste policies and procedures.
- Prepare clear and concise reports.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Successfully pass Texas Commission on Environmental Quality (TCEQ) onsite assessments.
- Negotiate with vendors and suppliers.
- Prepare and maintain detailed and accurate purchasing reports.
- Evaluate the quality and price of products to judge suitability of goods and alternatives offered.

MINIMUM JOB REQUIREMENTS

Bachelor's degree from an accredited college or university with major course work in Microbiology, Biology, or a related field and three years of responsible laboratory experience including one year in bacteriological testing required.

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.