

## **LABORATORY TECHNICIAN – SCIENCES**

### **BASIC FUNCTION**

Develops, organizes, implements, and coordinates methods for performing a variety of laboratory duties of a diversified nature for a science department; ensures the timely preparation of chemical solutions and other laboratory materials; sets up and disassembles experiments; orders, receives, stores, and issues inventory chemicals, supplies, and equipment; and troubleshoots, repairs, and maintains laboratory equipment and instruments.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives general supervision from the assigned area supervisor. May provide lead direction to temporary staff and/or student workers.

### **CLASS CHARACTERISTICS**

This classification in the Laboratory Technician – Sciences series is responsible for independently performing technical duties in support of an assigned science-focused laboratory. Employees at this level exercise judgment and initiative in their assigned tasks, receive only occasional instruction or assistance as new or unusual situations arise, and are fully aware of the operating procedures and policies of the department.

### **EXAMPLES OF TYPICAL JOB FUNCTIONS**

1. Maintains inventory and monitors supply utilization; requisitions and receives laboratory supplies, equipment, chemicals, biological specimens (living and preserved), and bacteriological cultures; aseptically prepares and maintains microorganisms stock cultures; maintains purity of organisms; properly stores chemicals and pending microbiology tests that require specific temperature growth requirements.
2. Sets up, maintains, calibrates, and adjusts high-tech machines, tools, equipment, and scientific instruments including, but not limited to, optical, mechanical, and electronic equipment and apparatuses; ensures interfaces between computer systems and laboratory apparatuses are functional.
3. Participates with faculty in the planning and implementation of experimental design and preparation of laboratory exercises.
4. Prepares specialized materials using standard laboratory equipment; measures, mixes, and prepares reagents, chemical solutions, and stains following standard formulas and procedures, using standard laboratory equipment.
5. Sets up and dismantles experiments as required; assembles, disassembles, cleans, replaces, and stores apparatuses and equipment used in laboratory experiments and demonstrations; organizes, cleans, and maintains science laboratories and stockroom areas; sterilizes glassware using autoclave, steam, and sterilizer generators.
6. Researches products; prepares and analyzes bids; calculates costs of materials from sources and procures supplies and equipment; receives and verifies shipment content; and assembles, tests, and installs new equipment and instruments.
7. Troubleshoots equipment and identifies defective equipment for repair or replacement; notifies appropriate personnel of needed repairs, maintenance, or any hazardous conditions that exist in the laboratories.
8. Collects, monitors, controls, labels, keeps detailed logs, stores, and arranges for safe disposal of

hazardous chemicals, reagents, and biological waste; develops, implements, and maintains laboratory safety protocols to comply with federal, state, and local regulations and District environmental health and safety requirements.

9. Enforces laboratory safety procedures including the routine inspection and/or testing of safety equipment and supplies and protocols for responding to laboratory emergencies such as hazardous materials spills and injuries acquired in the course of work.
10. Provides primary support for instructional computing needs/software as well as technical support to faculty and students; facilitates student learning in the science teaching laboratories; uses computers and computer-interfaced equipment, including visualizers, projectors, and digital cameras in educational applications; maintains data acquisition software on interface computers.
11. Implements new or modified laboratory policies and procedures; devises solutions to problems and prepares special instructions for non-routine and complex assignments; participates in laboratory training seminars to maintain current on technical developments and recommends safety-related improvements and modifications in laboratory procedures and operations.
12. Tracks laboratory budget expenditures; matches order forms with invoices and records, notes, and reports discrepancies; generates spreadsheets and various forms and maintains accurate computerized files and reports.
13. Participates in District-provided in-service training programs.
14. Performs other related duties as assigned; specific duties not listed does not exclude them for this classification if the work is similar or related.

## **QUALIFICATIONS**

### **Knowledge of:**

1. Methods, techniques, and procedures used in a college science department laboratory program.
2. Laboratory equipment, materials, supplies, and laboratory procedures, practices, techniques, and terminology used in life/physical sciences.
3. Methods and techniques of preparing reagents and chemical solutions and stains.
4. Methods and techniques of properly storing and preserving biological specimens and cultures.
5. Diagnostic tools and methods used in the repair, calibration, and maintenance of laboratory equipment and instrumentation unique to the life/physical sciences.
6. Principles, practices, and environmental health and safety regulations impacting laboratory operations.
7. Inventory techniques.
8. Recordkeeping principles and practices.

### **Ability to:**

1. Learn and apply the principles, practices, and environmental health and safety regulations applicable in laboratory environments.
2. Safely handle, store, and dispose of hazardous materials.
3. Properly prepare and preserve specimens, cultures, and related materials.
4. Synthesize, coordinate, and analyze data.
5. Perform jobs requiring precise attainment of set limits, tolerances, or standards.
6. Monitor and track laboratory expenditures and ensure compliance with budget.
7. Generate and maintain accurate computerized records, databases, reports, and files.
8. Use hand and power tools in the maintenance of laboratory instruments, equipment, and systems.
9. Set up lab equipment and materials used in exercises and experiments.
10. Establish and maintain filing, recordkeeping, and tracking systems.

11. Independently organize work, set priorities, meet critical deadlines, and follow up on assignments.
12. Exercise independent judgment within general policy and procedural guidelines.
13. Effectively use computer systems, software applications relevant to work performed, and business equipment to perform a variety of work tasks.
14. Communicate effectively in the course of performing work tasks.
15. Establish, maintain, and foster effective working relationships with those contacted in the course of work.
16. Demonstrate clear evidence of sensitivity and understanding of the diverse academic, socio-economic, disability, and ethnic backgrounds of students, staff, and the community.
17. Provide efficient, high-level customer service to the public, vendors, contractors, and District personnel.

**Education and Experience:**

An associate's degree with coursework in a scientific field, e.g., physics, chemistry, biology, microbiology, or similar life/physical science and two (2) years of technical experience in a science-focused laboratory testing environment; or equivalent combination of education, training, and/or experience.

**Licenses and Certifications:**

None.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office and laboratory equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This classification primarily works in an office and standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office and laboratory equipment including calibration devices. Employees in this classification occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 25 pounds or heavier weights of up to 50 pounds with the use of proper equipment and/or assistance from other staff.

The essential functions of this classification must be performed by the incumbents with or without reasonable accommodations.

**ENVIRONMENTAL CONDITIONS**

Employees work in an office/laboratory environment with moderate noise levels, controlled temperature conditions, and have direct exposure to hazardous physical or chemical substances. Employees may interact with upset individuals in interpreting and enforcing departmental policies and procedures.