

LABORATORY TECHNICIAN – CAREER & TECHNICAL EDUCATION

BASIC FUNCTION

Develops, organizes, implements, and performs a variety of laboratory duties of a diversified nature for the career and technical education (CTE) disciplines; prepares laboratory materials; calibrates and makes minor repairs and modifications on equipment; issues and replaces specialized materials used in the laboratories; sets up, checks out, receives, stores, and inventories instructional supplies and equipment; collects, stores, and properly coordinates the disposal of metal, industrial, and other waste.

SUPERVISION RECEIVED AND EXERCISED

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

CLASS CHARACTERISTICS

This classification is responsible for independently performing technical duties in support of laboratory activities in the electronics, engineering, and manufacturing disciplines in the CTE 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 instructional supplies and equipment; calculates cost of materials and procures supplies; researches products and makes purchases.
2. Assembles, tests, and installs new equipment and instruments; monitors and controls expenditures and reports discrepancies; compiles and prepares budget data.
3. Assists in the planning, preparation, implementation, and clean-up of instructional materials and exercises; sets up, operates, adapts, tests, and maintains equipment and computer system interfaces.
4. Prepares, tests, adjusts, and performs routine maintenance and calibration on a variety of electronic, engineering, manufacturing, and related field instruments; recommends solutions to equipment malfunctions; ensures all equipment is in proper working condition.
5. Provides maintenance and identifies defective equipment; changes/replaces filters and performs simple repairs; ensures regularly scheduled maintenance is completed and replacement parts are ordered; maintains specialized supplies and equipment unique to the various disciplines.
6. Distributes and issues electronic instrumentation and kits to students; prepares equipment, supplies, and instrumentation for various demonstration exercises; ensures proper operation of software, 3D printers, and robotic trainers; ensures availability and proper inventory of chemicals, wood, and metal for conventional and computer numerical control (CNC) machines; prepares special instructions for non-routine and complex assignments.
7. Assists in updating lab manuals, graphically generated and interactive tutorials, and other pertinent educational documents for laboratory teaching; develops, implements, and maintains laboratory safety protocols to comply with federal, state, and local regulations and District environmental health and safety requirements; enforces laboratory safety procedures including the routine inspection and/or testing of safety equipment and supplies; participates in laboratory training seminars.
8. Uses computers and computer-interfaced equipment including document cameras, display projectors,

and digital cameras.

9. Organizes, cleans, and maintains electronics, engineering, manufacturing and related field laboratories and stockroom areas.
10. Generates spreadsheets and various forms; maintains accurate computerized files and reports.
11. Participates in District-provided in-service training programs.
12. 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 electronics, engineering, manufacturing, or related department laboratory program.
2. Laboratory equipment, materials, and supplies.
3. Laboratory procedures, practices, techniques, and terminology used in electronics, engineering, manufacturing, and/or related fields.
4. Diagnostic tools and methods used in the repair, calibration, and maintenance of laboratory equipment and instrumentation unique to the electronics, engineering, and manufacturing sciences.
5. Business mathematics.
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. Set up lab equipment and materials used in exercises and experiments.
4. Use hand and power tools in the maintenance of laboratory instruments, equipment, and systems.
5. Monitor and track laboratory expenditures and ensure compliance with budget.
6. Generate and maintain accurate computerized records, databases, reports, and files.
7. Establish and maintain filing, recordkeeping, and tracking systems.
8. Independently organize work, set priorities, meet critical deadlines, and follow up on assignments.
9. Exercise independent judgment within general policy and procedural guidelines.
10. Effectively use computer systems, software applications relevant to work performed, and business equipment to perform a variety of work tasks.
11. Communicate effectively in the course of performing work tasks.
12. Establish, maintain, and foster effective working relationships with those contacted in the course of work.
13. Demonstrate clear evidence of sensitivity and understanding of the diverse academic, socio-economic, disability, and ethnic backgrounds of students, staff, and the community.
14. Provide efficient, high-level customer service to the public, vendors, contractors, and District personnel.

Education and Experience:

An associate's degree with coursework in electronics, engineering, manufacturing, or a related field and two (2) years of technical experience supporting an electronics, engineering, or manufacturing program or

operation; or an 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 work areas and walking between work areas may be required. Finger dexterity is often 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 in this classification must possess the ability to lift, carry, push, and/or 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 in this classification 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.