

LABORATORY TECHNICIAN – PHYSICAL SCIENCES AND ENGINEERING

DEFINITION

Under general supervision, provides instructional support services for faculty and students of the Physical Sciences and Engineering program; prepares and sets up laboratory exercises, demonstrations, and instructional materials; assists students and faculty in the use and operation of equipment and materials.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Dean, Natural Sciences. Exercises no direct supervision of staff. Provides technical and functional direction and training to student workers.

CLASS CHARACTERISTICS

This is a journey-level classification responsible for conducting a variety of instructional support activities to ensure student learning. Incumbents perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Incumbents at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of assigned area of responsibility. This classification is distinguished from other laboratory technicians by having subject matter expertise in physical sciences and engineering.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

1. Prepares and sets up laboratory exercises, demonstrations, and instructional materials; monitors laboratory environment; organizes, arranges, stocks, and distributes materials, equipment, and supplies.
2. Provides instructional support services for the Physical Sciences and Engineering program; assists in instructional demonstrations of laboratory procedures and techniques; explains related principles, practices, procedures, methods, materials, terminology, tools, and equipment.
3. Provides tutoring to students in physics, physical science, and engineering.
4. Operates, demonstrates use of, and maintains various laboratory equipment; assembles apparatus for experiments and checks for proper functioning.
5. Ensures proper use of laboratory equipment by monitoring activities according to established rules and policies.
6. Cleans and ensures proper storage of laboratory equipment; ensures laboratory and work areas are in clean and orderly condition.
7. Maintains accurate logs, reports, and records of work performed and materials and equipment used.
8. Monitors, orders, receives, stores, and maintains adequate inventory levels of supplies and equipment as directed.
9. Submits work orders for maintenance and repair of equipment and facilities.
10. Learns and applies emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
11. Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

1. Terminology, techniques, principles, theories, practices, and procedures related to the Physical Sciences and Engineering program.
2. General methods and procedures for preparing course materials and laboratory exercises and demonstrations used in physics, physical sciences, and engineering courses.

3. Set-up, operation, demonstration, and maintenance of various laboratory apparatus and equipment used in the Physical Sciences and Engineering program.
4. Methods, practices, and techniques of student learning and instruction.
5. Modern office practices, methods, and computer equipment and applications related to the work.
6. Record keeping principles and procedures.
7. English usage, spelling, vocabulary, grammar, and punctuation.
8. Techniques for providing a high level of customer service by effectively dealing with the public, students, and District staff, including individuals of various ages, disabilities, various socio-economic and ethnic groups.

Skills and Abilities to:

1. Explain and apply principles, practices, procedures, methods, materials, tools, terminology, and equipment related to the Physical Sciences and Engineering program.
2. Assist students and faculty in the use and operation of laboratory equipment and materials related to the Physical Sciences and Engineering program.
3. Create an engaging and positive learning environment in the computer laboratory, studio, or other learning environments.
4. Maintain laboratory equipment, materials, and supplies used in the Physical Sciences and Engineering program.
5. Interpret, apply, and explain applicable District policies, rules, and regulations related to areas of responsibility.
6. Estimate and order required supplies and equipment.
7. Establish and maintain filing, record keeping, and tracking systems.
8. Organize own work, set priorities, and meet critical time deadlines.
9. Operate modern office equipment including computer equipment and software applications programs.
10. Use English effectively to communicate in person, over the telephone, and in writing.
11. Understand scope of authority in making independent decisions.
12. Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
13. Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to an Associate's degree from a regionally accredited college in physics, physical science, engineering, or related field, and two (2) years of experience working in a physical science and/or engineering classroom, laboratory, or similar setting.

Licenses and Certifications:

None.

PHYSICAL DEMANDS

Must possess mobility to work in a laboratory/classroom environment 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, before groups, and over the telephone. This is primarily a sedentary classification although standing and walking between work areas may be 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. Incumbents 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 up to 20 pounds.

ENVIRONMENTAL ELEMENTS

Employees work in an office and student center environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with staff, students, and/or the public in interpreting and enforcing departmental policies and procedures.