



INSTRUCTIONAL/LABORATORY TECHNICIAN

DEFINITION

Under direction, plans, coordinates and performs technical or vocational instructional assistance activities using reinforcement and/or demonstrations in a specialized or technical instructional lab or shop environment; demonstrates and assists students with the safe and proper operation of equipment and tools; troubleshoots and performs routine adjustments, maintenance, and repair on a variety of lab equipment and tools; prepares lab exercises, demonstrations, and teaching aids; prepares and maintains a variety of records related to lab activities, assists students in the technical aspects of lab procedures; and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives direction from assigned supervisory or management personnel. Exercises no direct supervision over staff.

CLASS CHARACTERISTICS

This classification is responsible for independently performing duties in support of vocational or technical instructional demonstrations and reinforcement in a lab or shop environment. Positions 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 work unit.

EXAMPLES OF TYPICAL JOB FUNCTIONS

Management reserves the right to make reasonable accommodations so that qualified employees with verified medical conditions can perform the essential functions of the job.

- Provides technical and vocational instructional support and reinforcement to students and staff in instructional labs and maintains an environment that is conducive to learning; assists students with lab and/or shop assignments, exercises, experiments, projects, and/or repairs.
- Prepares the lab/shop environment and materials needed for demonstrations, exercises, assignments, and activities to correspond with curriculum and theory; researches and recommends supplemental lab exercises, purchases of supplies, equipment, tools, machinery, and other related materials to maximize instructional benefit.
- Maintains the lab/shop, ensuring a clean and orderly environment; stores, maintains, distributes, and accounts for inventory of equipment, machinery, tools, software, and other related materials.
- Coordinates with instructors to establish supplies and capital equipment outlay budgets; assists instructors in identifying instructional supplies and equipment needs; performs research on equipment prices, prepares requisitions and orders supplies and equipment within budgets and purchasing guidelines; and purchases materials as needed from suppliers or vendors.
- Performs inspections and calibrations on equipment; adjusts and maintains equipment in safe and clean working condition; troubleshoots and performs maintenance on lab equipment, machinery, tools or other related items; contacts appropriate personnel or vendors as needed for trouble-shooting assistance and arranges for equipment repair or replacement; loads, restores, and restarts lab equipment, computers, and programs; performs data or software back-ups according to established procedures.

- Assures proper labeling and identification of container contents and hazardous materials; notifies instructor of special handling procedures; disposes of hazardous materials after use according to established procedures.
- Performs a variety of clerical duties; prepares, updates, and stores various student and class records and files, including scores, proctor exams, progress, and attendance; deletes records as directed; updates and assembles lab handouts, brochures, and other related materials; maintains a variety of records and reports related to safety, waste inventory and disposal.
- Orients, demonstrates, and provides instructions to students in the proper operation of lab/shop machinery, tools, and equipment, including computers, related software, and/or other curriculum related materials or equipment.
- Collects, and reports data to anticipate the current and future needs of the instructional lab/shop; prepares and updates lab reports for faculty and administrators.
- Observes and controls behavior of students according to approved procedures, tracks and reports progress regarding student performance, attendance, and behavior.
- Assists in coordinating, scheduling, advertising, directing, and curating events related to the instructional area, as assigned.
- Provides training and work direction to student workers and/or lab tutors, as assigned.
- Works productively and cooperatively with others by demonstrating respect, patience and equitable treatment of all internal and external customers.
- Observes and complies with District and mandated safety rules, regulations, and protocols.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Operational characteristics and the proper and safe use of a variety of tools, equipment, hardware, and software used in the assigned instructional lab/shop.
- College curriculum and education requirements of the assigned subject area.
- Proper methods and procedures for safe handling and storage of hazardous materials, chemicals, equipment, and apparatus.
- Instructional reinforcement, and tutorial techniques for students.
- Use and application of a diverse range of diagnostic tools and equipment.
- Application and use of Materials Data Safety Sheets (MSDS).
- Methods and techniques of troubleshooting equipment, components and devices used in the labs.
- Health and safety practices and procedures used in the maintenance and repair of lab or shop equipment and machinery relevant to assigned subject area.
- District purchasing policies and procedures.
- Inventory control methods.
- Principles and practices of record keeping, data collection, and report preparation.
- Principles and practices of providing work direction and training.
- District and mandated safety rules, regulations, and protocols.
- Techniques of providing a high level of customer service by effectively interacting with students, staff, faculty, representatives of outside organizations, and members of the public, including individuals of diverse academic, socio-economic, ethnic, religious and cultural backgrounds, physical ability, and sexual orientation.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed

Ability to:

- Perform advanced and technical instructional reinforcement and demonstrations in an assigned lab/shop environment.
- Provide instructional support and direction or advice to students on the availability and uses of instructional materials and equipment.
- Coordinate and monitor use of the lab/shop and related equipment.
- Troubleshoot and perform routine maintenance of a variety of lab equipment.
- Tutor and assist students on the proper and safe operation of equipment and tools.
- Operate a variety of computers, tools, equipment and machinery of the assigned instructional shop or lab.
- Issue and receive equipment and supplies, and ensure the care and security of assigned equipment, materials, and supplies.
- Understand and follow oral and written directions.
- Maintain records and prepare reports.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Observe and objectively report on student performance, attendance and behaviors.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Demonstrate sensitivity to, and understanding of, the diverse academic, socio-economic, ethnic, religious, and cultural backgrounds of community college students.
- 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 that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Education:

- Equivalent to an associate degree with coursework that is relevant to the assigned area of instructional specialty or field of vocational career training.

Experience:

- Two (2) years of experience performing lab technical support work relevant to the assigned area of instructional specialty or field of vocational career training.

Licenses and Certifications:

- Possession of a valid California Driver's License, to be maintained throughout employment.
- Possession of a valid license or certification required to perform work in the assigned area of instructional specialty or field of vocational career training, to be maintained throughout employment.

PHYSICAL DEMANDS

- **Office Work** - Must possess mobility to work in a standard office and lab setting and use standard office equipment, including a computer; to operate a motor vehicle and visit various District sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This is primarily a sedentary office classification although standing in work areas 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 equipment. Positions 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 10 pounds.
- **Field/Shop Work** - Must possess mobility to work in the field or shop; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; possible entry into confined spaces and the use of confined entry equipment, to climb and descend ladders, to operate varied hand and power tools and equipment, and to operate a motor vehicle and visit various District sites; and vision to inspect and operate equipment. The job involves fieldwork requiring frequent walking in operational areas to identify problems or hazards, which may include working on live electrical wires. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 20 pounds, or heavier weights on a frequent basis, in all cases with the use of proper equipment and/or assistance from other staff.

ENVIRONMENTAL CONDITIONS

- **Office Environment** - Employees work in an office and lab environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.
- **Field/Shop Environment** - Employees work in the field or shop environment and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, chemicals, mechanical and/or electrical hazards, hazardous physical substances and fumes, dust and air contaminants. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.