

San Diego Community College District

CLASSIFICATION DESCRIPTION

Title: Instructional Lab Technician / Physical Science

Unit: Office Technical

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Job Code: J1108
Original Date: 01/1991
Last Revision: 07/2024
Staff Type: Classified
FLSA status: Non-exempt
Salary Range: 25

DEFINITION

Under the direction of an instructor or assigned supervisor or manager, assist in the instructional program by performing complex technical work in an instructional laboratory environment in the subject of physical science.

DISTINGUISHING CHARACTERISTICS

The Instructional Lab Technician class is distinguished from the Instructional Assistant class in that positions assigned to the class of Instructional Lab Technician oversee a complex instructional laboratory for an academic or vocational area and must possess extensive technical or academic training and experience in the field of specialty. Under the direction of an administrator or specified faculty member, incumbents work independently and provide work direction and training to Instructional Assistants and/or student assistants.

EXAMPLE OF DUTIES

1. Oversee the operation and maintenance of an instructional laboratory environment in the subjects of chemistry, physics, geology, geography, and astronomy; train and provide work direction to Instructional Assistants and student assistants.
2. Assist instructors and staff in the use of a variety of equipment, materials, and supplies found in a laboratory for physical science.
3. Prepare and issue chemicals, reagents, glassware, spectrometers, apparatus, computers, and meters for student use; maintain records of materials and equipment loaned to students.
4. Order, receive, catalog, and store supplies, materials, and equipment; maintain inventories, ensuring that adequate quantities are available for timely instructional use.
5. Prepare chemicals, solutions, and equipment for instructor demonstration and student laboratories as requested according to approved procedures; design equipment for experiments.
6. Oversee the appropriate handling, storage, and disposal of hazardous materials and chemicals, hazardous waste; ensure proper inspection and maintenance of safety equipment and supplies; oversee safety reporting and compliance requirements based on federal, state, and District safety regulations.
7. Test, adjust, and maintain apparatus, equipment, and planetarium; check all laboratory equipment for proper operation on a daily basis; make calibrations to equipment as necessary.
8. Make minor repairs on equipment, such as replacing screws, soldering, and minor wiring.
9. Provide technical assistance in the preparation of specifications for equipment and material purchases; recommend selection of equipment as requested; may interview vendors to assess new equipment and supplies.
10. Develop and coordinate training programs acceptable to OSHA and other regulatory agencies, including a written exam to Instructional Assistants and disposal of hazardous waste according to federal, State, county, and city regulations.

11. Assist in the preparation of the laboratory budget; monitor budget expenditures.
12. Perform related duties as assigned.

DESIRABLE QUALIFICATIONS

Knowledge:

Chemistry, physics, astronomy, electronics, and electricity.
District organization, operations, policies, and objectives.
English usage, grammar, spelling, punctuation, and vocabulary.
General needs and behavior of students of various racial, ethnic, and cultural backgrounds.
Hazardous Waste Operations and Emergency Response (HAZWOPER)
Oral and written communications skills.
Principles and practices of work direction and training.
Principles, practices, procedures, and equipment of chemistry, physics, astronomy, geology, and technical science.
Record-keeping techniques.
Safety regulations involving chemistry and physics.
Theories of sound, heat, and mechanics as applied to physics.

Skills and Abilities:

Assemble, maintain, and repair laboratory equipment.
Assist students in understanding and applying basic principles of physical science.
Communicate effectively both orally and in writing.
Demonstrate competence in the field of physical science.
Ensure the care and security of assigned equipment, materials, and supplies.
Establish and maintain effective working relationships with others.
Explain work assignments to students.
Issue and receive equipment and supplies.
Learn and apply techniques of precise measurement and notation.
Maintain records and prepare reports.
Make simple arithmetic calculations.
Meet schedules and time lines.
Plan and organize work.
Relate effectively with people from varied cultural and socio-economic backgrounds.
Train and provide work direction to others.
Understand and follow oral and written directions.
Work cooperatively with others.
Work independently with little direction.

Training and Experience:

Any combination of training and experience equivalent to: satisfactory completion of 15 semester units of courses in physical science and at least two years of successful work experience in the field of physical science or a Bachelor of Science degree in Physical Science from a four-year college. Experience in an instructional setting is desirable.

WORKING CONDITIONS

Physical Requirements:

Category II

Environment:

Favorable, involves an instructional laboratory setting. Daily exposure to fumes from chemicals, vapors, carcinogens, and odors.