

INSTRUCTIONAL SUPPORT TECHNICIAN – LIFE SCIENCE**DEFINITION**

Under direction, performs complex technical instructional and administrative support in a life science laboratory and/or instructional setting; conducts and delivers a variety of learning experiences for students, using and applying specific knowledge and skill pertinent to the life sciences; prepares chemical solutions; assists with collection, propagation, dissection and/or preservation of specimens; operates and maintains equipment related to the assigned instructional area; helps ensure student safety while using hazardous equipment, chemicals, or other materials; performs technical administrative support tasks for faculty and other instructional staff; and performs related work as assigned.

DISTINGUISHING CHARACTERISTICS

The Instructional Support Technician is the first technical-level class in the Instructional Support Series within the Yosemite Community College District (YCCD). Incumbents in this class provide primary technical, instructional and/or administrative support in highly specialized academic laboratories and instructional settings. Incumbents may also coordinate and lead the staff and functions in less complex areas such as administrative, computer or general instructional settings. Incumbents in this class must possess and utilize technical and specialized knowledge of a particular instructional or academic area in order to perform duties and help ensure the safety of students.

The Instructional Support Technician – Life Science may be distinguished from others in this class by the specific science training needed and the specialized skills utilized in support of life science instruction.

This class may be distinguished from the lower-level class of Instructional Support Assistant because incumbents in that class perform journey level instructional and administrative support duties in a computer, administrative or general instructional setting where the work does not typically require technical knowledge of a specialized instructional or academic area. Although an Instructional Support Assistant may support several different instructional locations, incumbents do not have formalized lead or coordinator responsibilities over classified employees. This class may also be distinguished from the higher-level class of Instructional Support Specialist because incumbents in that class lead and perform the most complex technical and administrative support activities in a highly complex science laboratory setting.

SUPERVISION RECEIVED AND EXERCISED

Incumbents in this class work under the direction of a manager or senior manager, receiving occasional supervision while working toward a definite objective that requires use of a wide range of procedures. Incumbents plan and/or determine specific procedures or equipment required to meet assigned objectives and solve non-routine problems, referring only unusual matters to a supervisor.

An incumbent in this class does not directly supervise other full-time employees, but may lead, assign, direct and/or monitor the work of subordinate full time, part time, and/or student employees on a regular, project or assignment basis.

EXAMPLES OF DUTIES (*Illustrative Only*)

- Assists faculty and other instructional staff by preparing and presenting technical materials designed to enhance students' learning processes; sets up and conducts complex instructional exercises as directed; may independently implement and coordinate instructional sessions and activities.
- Prepares equipment, materials and/or chemicals for specialized exercises in support of life science classes.
- Measures and mixes reagents; trains students in procedures for mixing, storing, dispensing and labeling laboratory work or supplies.
- Collects specimens; develops culture plates, seeks out sources of demonstration materials and supplies.
- Sets up, disassembles, cleans or replaces apparatus and instructional materials used in laboratory activities and demonstrations.
- Prepares and properly disposes of solutions, cultures, and specimens;
- Develops, explains and demonstrates learning exercises and instructional materials; monitors students in class work procedures; consults with faculty as needed to develop lesson plans.
- Instructs and/or tutors individual students and small groups to reinforce and follow up on classroom learning activities; monitors and assists students in drills, practices and study activities as a follow up what was presented during regular classes.
- Proctors and monitors students who are taking tests; verifies student identification; gives verbal instructions; provides completed examinations to instructors.
- Reports student progress toward the accomplishment of learning objectives.
- Helps maintain the learning environment in a safe, clean and orderly condition; calibrates and performs minor repairs on laboratory equipment; cleans, washes and maintains laboratory work areas according to established procedures; organizes laboratory materials; monitors the safety and security of equipment; opens/closes facilities.
- Operates and maintains specialized equipment during specific lessons and when training students regarding equipment repair and maintenance; stores chemicals and equipment appropriately and safely.
- Helps maintain records of materials ordered, issued, used and returned; helps monitor inventories to ensure that adequate quantities are available for timely instructional use; maintains student positive attendance records, ensuring that students sign in/sign out; tracks student costs for computer and/or equipment use; maintains student laboratory accounts and submits charges.
- Assists in ordering and receiving chemicals, laboratory supplies and equipment; contacts vendors to order supplies as needed.
- Disposes of unsafe or hazardous materials according to Federal, State, County and City regulations.
- Maintains libraries and/or inventories of instructional resources and materials; maintains records of materials loaned to students for home study.
- Organizes and presents workshops related to the development of study skills, interpersonal skills, life skills, academic improvement, and other subjects relevant to learning.
- Performs a wide range of administrative support duties that typically require typing, proofreading, filing, checking and recording information.
- Posts information to a computerized and/or manual management information storage and retrieval systems; retrieves and compiles information and prepares complex clerical forms, reports and summaries.
- Operates a variety of computers and/or related equipment pertaining to the assigned academic area; performs routine hardware and software installations, maintenance and troubleshooting; assists students in utilizing specialized computer technology as part of the learning process; installs and sets up hardware and software; resolves and repairs minor technical issues.

- Coordinates and leads the work of subordinate staff in a moderately complex, non-technical laboratory environment that has a computer learning or administrative academic focus.
- Performs other related duties as assigned.

TYPICAL WORKING CONDITIONS

- Work is generally performed in a specialized classroom or laboratory setting.

MINIMUM QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The knowledge and ability requirements are representative of essential duties. Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions of the position.

Knowledge of:

- Operations, procedures, goals and objectives of the life sciences.
- Modern office and classroom procedures and equipment, including computers and associated software applications.
- Principles and practices of leadership.
- The advanced and specialized procedures and equipment used in life science instructional laboratories.
- Student behavior management strategies and techniques.
- Methods and techniques of student instruction.
- Proper English usage, spelling, grammar and punctuation.
- Principles and practices of filing and record keeping.
- Appropriate and effective communication and listening skills.
- Advanced concepts of computer-assisted instruction, and tutorial processes.

Ability to:

- Demonstrate an understanding, patient, and receptive attitude toward students in a life science instructional setting.
- Serve as a lead worker over subordinate administrative and non-technical staff.
- Perform technical administrative tasks.
- Operate a variety of computer and peripheral equipment.
- Utilize a variety of appropriate instructional materials and procedures in the enhancement of a positive educational environment.
- Communicate effectively, both orally and in writing.
- Establish and maintain effective working relationships with those contacted in the course of the work.

Licenses and Certificates:

- Depending upon assignment, a valid license to drive in California may be required.

Physical and Mental Standards:

- **Mobility:** ability to sit, walk or stand for extended periods.
- **Dexterity:** fine manipulation sufficient to operate a computer keyboard, handle individual papers, write and take notes and/or prepare laboratory materials/equipment; must have a full range of motion in the upper extremities.
- **Lifting:** frequently lift, carry, push, pull, or otherwise move objects up to 25 pounds.

- **Visual Requirements:** close vision sufficient to read files, documents, and computer screens and do close-up work; ability to adjust focus frequently.
- **Hearing/Talking:** ability to hear normal speech, speak and hear on the telephone, and speak in person.
- **Emotional/Psychological Factors:** ability to make decisions and concentrate; frequent contact with students and instructors, as well as the public.
- **Other Factors:** moderate risk of exposure to hazardous chemicals, biological materials, flammable gases and electric shock; moderate use of equipment with moving and/or sharp parts.

Education and Experience:

Any combination of education, experience and/or training that would likely provide the above-required knowledge, skills and abilities is qualifying. Typical background patterns that would provide the knowledge, skills and abilities are:

Pattern I

- Experience: Two years equivalent to an Instructional Support Assistant at YCCD, performing duties that provided familiarity with a specialized academic area (which may vary depending upon the assignment of the position).

OR Pattern II

- Education: Possession of an associate's degree from an accredited college or university, with major course work in a life science or other area applicable to the specific assignment of the position.
- Experience: Two years performing technical duties that provided familiarity with the life sciences (which may vary depending upon the assignment of the position).

Special Requirements:

- Depending upon the assignment of a position, applicants may be required to demonstrate technical knowledge and skills pertaining to a specialized academic area within the life sciences, such as anatomy, biology, botany, microbiology, physiology, or zoology.

Class Adopted: 03/01/09
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