

JOB TITLE: Instructional Assistant - Biological Sciences
PAY GRADE: CL 20
LAST REVISED: July 2025

*Job Descriptions/Class Specifications are intended to present a descriptive list of the range of duties performed by employees in the job and are **not** intended to reflect all duties performed within the job.*

Sierra College has a strong commitment to the achievement of equity and inclusion among its faculty, staff, and students and values the rich, diverse backgrounds that make up the campus community. A strong candidate for this position must have the understanding and ability to successfully support individuals with varying backgrounds. This includes persons with disabilities, various gender identities and sexual orientations, as well as individuals from historically underrepresented communities and other groups. Our District is committed to providing strategies for success and proactive student-centered practices and policies focused on eliminating equity gaps to ensure the District provides an inclusive educational and employment environment focused on strategies for success and equitable outcomes for all.

SUMMARY DESCRIPTION

Under general supervision from assigned manager and in collaboration with instructional faculty, provides instructional support to the Biological Sciences Department, requiring in-depth knowledge of subject area and associated use of technology, computers and software, and equipment; provides technical and instructional assistance to support laboratory and classroom activities; and provides purchasing, inventory, and maintenance duties for laboratory and classroom supplies, materials, and equipment.

REPRESENTATIVE DUTIES

The following duties are typical for this classification. Incumbents may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address business needs and changing business practices.

1. Provides instructional support for department, including technical and instructional assistance to students with special projects, field trips, coursework, homework, presentations, demonstrations, or other instructional activities in classroom and laboratory settings; proctors exams and quizzes; collaborates with department faculty to set up demonstrations; assists with curriculum planning and coordination; assists with layout and production of instructional materials, including graphics and audio-visual aids; researches, learns, and shares information regarding new laboratory techniques and methods with District staff; provides ongoing times and locations for formal tutoring sessions (online or on-site); hosts additional lab time and tutoring sessions for student projects, examinations, and study, as needed.
2. Provides instructional support in online teaching environments, including learning and video conferencing platforms; provides lab instructional support by purchasing and assembling take-home lab kits, and coordinating distribution activities.
3. Prepares, monitors, and cleans-up materials and supplies for classroom and laboratory activities; collects laboratory schedules from, interacts with, and coordinates laboratory preparation with department faculty; cultivates, maintains cultures, and prepares living specimens including microbial, fungal, bacterial, and viral specimens via plates, slants, and other tube media; provides care and observes protocols for humane treatment of living specimens; prepares preserved animal dissection materials; prepares specialized and bio-technical microscopic materials for classroom and laboratory use; prepares chemical solutions.
4. Monitors proper use of laboratory equipment and materials; participates in processes to upgrade or replace department equipment and resources; sets up and takes down, tests, maintains, inspects, cleans, calibrates, or arranges for distribution, maintenance, and repair of department facilities and equipment, including apparatus, equipment, models, and other instructional materials.
5. Maintains, inventories, and organizes the biological sciences prep-lab facility, including stockroom, classrooms, and project area; maintains, repairs, distributes, and manages inventory of department apparatus, equipment, and supplies; curates biological collections and specimens; arranges for timely

receipt of and maintains purchased living and perishable specimens for labs; inspects incoming shipments and distributes or stores in proper locations; designs, organizes, and maintains department storage facilities; prepares listings of unneeded hazardous materials and arranges for pickup and removal from District premises; updates Safety Data Sheets (SDS) and other safety-related documentation for hazardous materials.

6. Provides initial computer technical assistance, training, and support to faculty, staff, and students; installs, removes, maintains, and assists with troubleshooting department computer hardware and software; assists with setup of department computer systems; maintains department databases; requests or arranges for assistance, servicing, or repair of department computer equipment from Information Technology Services (ITS) or other resources.
7. Provides administrative support for department; responds to inquiries regarding department operations or refers inquiries to appropriate staff; assists in the maintenance of assigned natural area(s); monitors, coordinates, and facilitates use of department facilities, resources, and collections for access and security; prepares or assists with preparation of departmental reports and correspondence; maintains department records, including warranties, licenses and operating information for equipment and software.
8. Participates in the preparation and administration of assigned budget(s); researches and purchases assigned contracts, materials, and supplies, and determines future needs; works with vendors to obtain quotes; requests purchase orders; inventories supplies and instructional materials; discusses new products or special needs with vendors and District staff; works with District staff to obtain laboratory, lecture, or other supplies; maintains expenditure records and prepares reports; advocates for the needs of the department; and creates prioritized lists of needed equipment and quotes for administration; provides input regarding annual budget development.
9. Assists with caring for instructional cadaver(s); oversees safety protocols, usage, and privacy rules set forth by the University of California, Davis (UCD); orders chemicals and prepares wetting solutions; stores, labels, and returns biological liquids and solids associated with the cadaver to UCD; oversees and instructs student usage and classroom testing utilizing cadavers.
10. Works with chemical safety consultant, as needed, to maintain current knowledge of and ensure compliance with federal and state regulatory, safety, and health standards to ensure safe and legal acquisition, use, storage, and disposal of all chemicals and hazardous materials in the department, including microbiological, pathological, and biological waste.
11. Prepares, loads, and transports biology materials between campuses or off-site locations; may be required to operate District vehicle for transport.
12. May ensure Natural History Museum and teaching collection is maintained in good order, including overseeing the repair or replacement of museum artifacts; oversees the scheduling of faculty and educational use of the collection in collaboration with the Museum Director.
13. May perform basic first aid, as needed.
14. Provides onboarding support, general work training, guidance, supervision assistance, and directs activities of students, temporary employees, or District staff.
15. Performs related duties that support the overall objective of the position.

QUALIFICATIONS

The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.

Knowledge of:

- Theories, concepts, principles, techniques, protocols, and applications of biological sciences and related scientific disciplines, including Biotechnology, Microbiology, Polymerase Chain Reaction (PCR), and Recombinant Deoxyribonucleic Acid (DNA).
- Biological collecting and preservation techniques, including techniques for care of living specimens.
- Chemical, pathological, and microbiological waste management and disposal.
- Operational characteristics of laboratory apparatus, equipment, and materials.

- Principles and techniques used in the repair and calibration of scientific instruments.
- Mathematical principles and scientific concepts.
- Federal, state, and local laws, codes, and regulations regarding instruction, support of students, and laboratory protocols, including, but not limited to, the Family Educational Rights and Privacy Act (FERPA) and the Americans with Disabilities Act (ADA).
- Basic inventory, bookkeeping, and purchasing processes and procedures.
- Research techniques.
- English usage, spelling, grammar, punctuation, and vocabulary.

Ability to:

- Perform general technical and operational duties in support of the Biological Sciences Department, including, but not limited to, operating and maintaining equipment, computers, and tools; maintaining and organizing supply inventory and storage facility; proctoring tests; and supporting classroom and lab activities.
- Locate and identify regional plants, animals, and other specimens in the field and assist with the identification of regional fossils.
- Aseptically transfer and isolate pure cultures of bacteria.
- Prepare various sterile media to maintain microorganisms, electrophoresis gels, and DNA samples.
- Prepare chemical and other solutions, extracts, and dilutions to specifications.
- Cultivate various living organisms.
- Identify, maintain, and prepare microscopic slides.
- Identify fossils, as well as human and other animal skeletal structures.
- Assist with the care and maintenance of cadavers.
- Read and understand laboratory and technical manuals and procedures.
- Apply scientific principles to practical applications; analyze data and solve problems.
- Work outside of regular business hours in emergency situations to provide care for live specimens and cadavers, as needed.
- Adapt to changing technologies and learn functionality of new equipment and systems.
- Practice safety precautions, techniques, and procedures, including safe lifting techniques, laboratory protocols, and safe handling, storage, and disposal of hazardous materials.
- Plan and organize work to meet schedules and changing deadlines.
- Perform basic record keeping functions.
- Utilize office procedures, methods, and equipment, including computers, technology, and applicable software applications sufficiently to perform the duties of the classification, including those used in the field of biology and Learning Management Systems (LMS).
- Maintain confidentiality of information.
- Make arithmetic calculations of average to above average difficulty.
- Follow oral and written directions.
- Communicate clearly and concisely, both orally and in writing.
- Provide onboarding support, general work training, guidance, supervision assistance, and direct activities of students, temporary employees, or District staff.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Work independently and collaboratively.
- Apply District policies and procedures.

EDUCATION AND EXPERIENCE GUIDELINES

Any combination of education and experience that demonstrates the required above knowledge and abilities is qualifying. Examples of ways to obtain the above knowledge and abilities could include, but are not limited to, the following:

Education/Training

- Two years of college with major course work in biological sciences or a related scientific field.

Experience

- Two years of increasingly responsible experience in a biological sciences laboratory.

License/Certificate - Possession of, or ability to obtain within a reasonable timeframe, each of the following:

- Valid California Driver's License.
- First Aid Certificate.
- Hazardous Materials Awareness Certificate.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

Environment: Work is performed indoors in a classroom/laboratory setting and outdoors in the field; exposure to dusts, mists, fumes, wet or damp surfaces, extreme heat or cold, noxious odors, chemicals and caustics, and allergenic plants and materials; risk of insect and animal stings and bites; risk of exposure to blood borne and/or other pathogens; work with laboratory equipment and apparatus. Moderate exposure to risks controlled by safety precautions.

Physical: Primary functions require sufficient physical ability and mobility to work in an office and/or indoor/outdoor education center/classroom/laboratory setting; to stand or sit for prolonged periods of time; to occasionally walk, stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull light to moderate amounts of weight to operate laboratory and office equipment, requiring repetitive hand movement and fine coordination, including use of a computer keyboard; to verbally communicate to exchange information; and requires the wearing of personal protective equipment when necessary.

Vision: See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

Hearing: Hear in the normal audio range with or without correction.

Board Approved: July 15, 2025