

JOB TITLE: Instructional Assistant - Mechatronics
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 Mechatronics programs and activities, requiring in-depth knowledge of subject area and associated use of technology, computers, software, and equipment; provides technical and instructional assistance to support laboratory and classroom activities at multiple campuses; 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 program, including technical and instructional assistance to students with special projects, field trips, homework, presentations, demonstrations, or other instructional activities in classroom and lab settings; proctors exams and quizzes; collaborates with 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; programs computer chips used in class labs and projects; demonstrates and assists students in safe and proper use of lab equipment and tools; provides ongoing times and locations for formal tutoring sessions (online and/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 Management Systems (LMS), purchasing and assembling take home lab kits, and coordinating distribution activities.
3. Prepares, monitors, and cleans-up materials and supplies for classroom and lab activities; collects lab schedules from, interacts with, and coordinates lab preparation with department faculty; assists instructors with classroom preparation and equipment set-up; issues and collects tools, equipment, kits, and other materials; assembles and packages project parts kits; fabricates or machines parts, new lab equipment, and training tools or equipment to be used for labs and projects.
4. Monitors and assists with the proper use of classroom and lab equipment and materials; assists with ensuring safety and security procedures are followed; inspects tools, equipment, and machinery for hazards and takes prompt action to prevent injury or damage; maintains function of all safety guards, stops, switches, and cutouts on all equipment; maintains safety signage; facilitates use of Personal Protective Equipment (PPE) and additional safety equipment; locks and unlocks building entrances and exits, department doors, and storage facilities, as needed; cleans and organizes workspaces, floors, and storage facilities to ensure a safe working environment; rearranges equipment and facilities; modifies and updates operating procedures, as needed

5. Performs equipment and tool maintenance and set-up; assembles, installs, and tests new equipment; operates, inspects, maintains, and performs minor repairs to hand and power tools, machinery, equipment, and facilities; performs preventative and operational maintenance, including troubleshooting, diagnosing, and repairing tools, machinery, equipment, and facilities; arranges for servicing, packaging, shipping, and/or repair of tools, machinery, or equipment, as needed; fabricates new or renovated replacement parts for repairs and maintenance.
6. Maintains, inventories, and organizes the program lab facilities, including stockroom and project areas; maintains, repairs, and manages inventory and distribution of department apparatus, equipment, manuals, and supplies; maintains records of items checked in and out; inspects incoming shipments and distributes or stores in proper locations; designs, organizes, and maintains department storage facilities.
7. 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 set up of department computer systems and networks; maintains department databases; requests or arranges for assistance, servicing, or repair of department computer equipment from District Information Technology Services (ITS) staff or other resources.
8. Performs administrative duties for department; responds to inquiries regarding department operations or refers inquiries to appropriate staff; monitors, coordinates, and facilitates use of department facilities, resources, and equipment for access and security; prepares or assists with preparation of department reports and correspondence; maintains department records, including warranties, licenses and operating information for equipment and software.
9. Participates in the preparation and administration of assigned budget(s), including grants; researches and purchases assigned contracts, materials, and supplies, and determines future needs; works with vendors to obtain quotes; requests purchase orders; inventories existing supplies and instructional materials; discusses new products or special needs with vendors and District staff; works with District staff to obtain lab, lecture, or other supplies; maintains expenditure records and prepares reports; advocates for the needs of the department; and creates prioritized lists of needed equipment for administration; provides input regarding annual budget development.
10. Ensures safe handling, storage, transportation, and disposal of hazardous materials; complies with federal, state, and local laws and industry best practices for the handling and storage of hazardous materials; classifies and packages chemicals for hazardous waste removal; maintains hazardous chemical storage in a secure location with controlled access; maintains Safety Data Sheets (SDS) for all chemicals and other safety-related documentation for hazardous materials; prepares listings of unneeded hazardous materials and arranges for pickup and removal from District premises.
11. Prepares, loads, and transports department materials between campuses or off-site locations; may be required to operate District vehicle for transport.
12. May perform basic first aid, as needed.
13. Provides onboarding support, general work training, guidance, supervision assistance, and directs activities of students, temporary employees, or District staff.
14. 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:

- Principles, techniques, protocols, applications, and equipment used in Mechatronics programs, including electronics, metal fabrication, and printed circuit boards.
- Operational characteristics of laboratory apparatus, equipment, and materials.
- Principles and techniques used in the repair and calibration of instruments and equipment.
- Federal, state, and local laws, codes, and regulations regarding instruction, support of students, and lab 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.
- Principles and practices of record keeping.
- English usage, spelling, grammar, punctuation, and vocabulary.

Ability to:

- Perform general technical and operational duties in support of Mechatronics programs, including, but not limited to, operating and maintaining equipment, computers, and tools; maintaining and organizing supply inventories and storage facilities; proctoring tests; and supporting classroom and lab activities.
- Fabricate printed circuit boards and parts for electronic equipment and student projects.
- Assemble and package project parts kits and fabricate parts for kits and student projects.
- Assist students in the use of lab equipment and lab procedures.
- Operate vehicles and maintenance equipment, including hand and power tools, measuring devices, machinery, and equipment.
- Read and interpret wiring diagrams, schematics, printed circuit boards, electronic parts specifications, and technical manuals.
- Practice safety precautions, techniques, and procedures, including safe lifting techniques, "lock-out/tag-out", laboratory protocols, and safe handling, storage, and disposal of hazardous materials.
- Adapt to changing technologies and learn functionality of new equipment and systems.
- Plan and organize work to meet schedules and changing deadlines.
- Perform basic record keeping functions.
- Compile information and statistics for reports and records.
- Utilize office procedures, methods, and equipment, including computers, technology, and applicable software applications sufficiently to perform the duties of the classification, including Learning Management Systems (LMS) and specialized software and applications for printed circuit board design.
- Maintain confidentiality of information.
- Follow oral and written directions.
- Communicate clearly and concisely, both orally and in writing.
- Provide onboarding support, general work training, guidance, supervision assistance, and directs 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

- Equivalent to the completion of the twelfth grade or GED supplemented by college level coursework or specialized training in electronics, mechatronics, computer control, or a related field.

Experience

- One year of experience in electronics, mechatronics, and computer control environment.

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