

**JOB TITLE:** Energy Maintenance Specialist  
**PAY GRADE:** CL 24  
**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, performs a variety of skilled journey level work in the design, fabrication, installation, and maintenance of mechanical or industrial electrical systems, electrical controls, ventilation, air conditioning, and heating systems (HVAC); and performs a variety of tasks relative to assigned area of responsibility.

### **REPRESENTATIVE DUTIES**

*The following duties are typical for this job 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. Troubleshoots and repairs HVAC and related equipment with minimal interruption to District administrative and instructional activities.
2. Maintains air handlers at optimal levels; tightens, adjusts, repairs, replaces, calibrates, and maintains boilers, chillers, variable frequency drives, motor control contactors, and pumps.
3. Installs stand-alone local area network (LAN) networks for HVAC equipment and controllers.
4. Designs, fabricates, and installs duct work, airflow systems, condensers, refrigeration to accommodate new and existing building and equipment requirements; removes old equipment and refrigerants according to applicable laws and safety standards; removes old ducts, plenums, and associated sheet metal.
5. Performs preventive maintenance on high voltage switch gear, irrigation pumps, and walk-in freezers, as they relate to HVAC or related equipment.
6. Programs, monitors, and schedules multiple computerized Energy Management Systems (EMS) at various District sites such as Johnson Controls and Alerton systems.
7. Installs variable frequency drive controllers, proportional controllers, and other direct digital EMS controls to existing HVAC equipment.
8. Modifies existing HVAC equipment or components to change, enhance, or augment functions to conserve energy.
9. Designs, fabricates, and modifies old refrigeration units to accommodate new types of refrigerants, as necessary; safely discarding old refrigerants in accordance with applicable laws and standards, measures system pressures and capacity performance, and ensures system compliance to applicable codes and standards.
10. Calculates load factors to ensure adequate cooling and heating of occupied space, including air distribution system plenums, economizers, electrical loads, and exhaust fans.
11. Installs new packages, split systems, chiller built-up systems, fan coil units, heating units, heat pumps, boilers, associated pumps, piping, control flow valves, digital controls, and interface devices.
12. Applies the principles and practices of indoor air quality standards and compliance strategies.

13. Performs comparative carbon dioxide level testing, as needed, adjusts HVAC equipment to ensure optimal levels of fresh outside air per occupant.
14. Writes contractual bids for and/or inspects work performed by independent contractors/consultants retained under contract with the District to provide specialized products or services, as assigned.
15. Remotely accesses EMS system for HVAC modifications.
16. Project involvement/management with outsourced/contracted projects.
17. Notifies Community Safety Department of suspicious activity and/or persons in need of assistance.
18. Provides onboarding support, general work training, guidance, supervision assistance, and directs activities of student or temporary employees.
19. 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:**

- Federal, state, and local building/construction codes and standards.
- Operation of boilers, chillers, air handlers, and HVAC systems.
- Procedures, repairs, techniques, and concepts of mechanical and electronic air balancing, electrical and electronic systems, and energy conservation.
- Principles, practices, and techniques of machining.
- Operation characteristics of digital controls.
- Equipment calibration techniques.

**Ability to:**

- Operate, maintain, and repair HVAC systems, chillers, boilers, air handler units, and electronic devices and components, including microprocessors.
- Operate trucks, forklifts, scissor lifts, boom trucks, chain hoists, electric high-lift equipment, and maintenance equipment, including hand and power tools.
- Practice safety precautions, techniques, and procedures, including safe lifting techniques, "lock-out/tag-out", and safe handling, storage, and disposal of hazardous materials, including refrigerants.
- Read and interpret engineering drawings, sketches, blueprints, schematics, and building and fire codes.
- Plan and organize work to meet changing priorities and deadlines.
- Maintain accurate records.
- Use computers and related technology sufficiently to perform the duties of the classification, including software or web-based work order system, to receive and report work needed and work completed.
- Follow oral and written directions.
- Communicate clearly and concisely, both orally and in writing, including, but not limited to, electronic communications via District assigned smart phone or personal computer (PC).
- Follow oral and written directions.
- Provide onboarding support, general work training, guidance, supervision assistance, and direct activities of students or temporary employees.
- Establish and maintain effective working relationships with those contacted in the course of work.
- Coordinate with staff and others to minimize delays or interruptions to District activities.
- Respond to emergencies.
- 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 supplemented by specialized training in heating, ventilation, refrigeration, and air conditioning repair and maintenance.

**Experience**

- Three years of training or experience at the journey level in the heating, ventilation, refrigeration, and air conditioning trade.

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

- Valid California Driver's License.
- Asbestos Awareness Training Certificate.
- EPA Refrigerant Handling Certificate.
- Forklift 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 in both indoor and outdoor environments; travel from site to site; exposure to noise, dust, electrical energy, grease, smoke, fumes, noxious odors, and gases; work and/or walk on various types of surfaces, including slippery or uneven surfaces. Position may be required to work evenings, nights, and weekends.

**Physical:** Primary functions require sufficient physical ability and mobility to perform moderately strenuous manual labor; to stoop, bend, kneel, crouch, reach, and twist; to lift, carry, push, and/or pull moderate to heavy amounts of weight; dexterity of hands and fingers to operate specialized hand and power tools and equipment; operate assigned equipment; to stand and walk for extended periods of time; and to verbally communicate to exchange information.

**Vision:** See in the normal visual range with or without correction.

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

Board Approved: July 15, 2025