

PALOMAR COMMUNITY COLLEGE DISTRICT

HVAC TECHNICIAN

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

DEFINITION

To install, maintain, repair and service heating, ventilation, air conditioning and refrigeration equipment; to troubleshoot and repair electrical systems; and to perform a variety of technical tasks relative to assigned area of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Supervisor, Building Services.

May exercise functional and technical supervision over assigned staff.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS

Essential and other important responsibilities and duties may include, but are not limited to, the following:

Essential Functions:

1. Install, maintain, repair and service heating, ventilation, air conditioning and refrigeration equipment including electrical controls; change filters, clean, oil and lubricate motors and bearings and adjust belts and pulleys.
2. Operate a variety of equipment and tools including drills, saws, electrical diagnostic control metering tools, torches, welders, refrigeration manifolds and vacuum pumps; operate computerized control systems.
3. Maintain, repair and service a variety of large and small equipment and appliances including refrigerators, freezers, ice machines, centrifugal chiller and hot water boilers.
4. Maintain and repair large commercial air handling units; adjust and balance air flow on all units; replace old air conditioning heat pump systems as necessary.
5. Perform regularly scheduled preventive maintenance on all assigned equipment; clean coils and vacuum equipment.
6. Replace or repair thermostats; re-program electronic controllers; install new controls as needed; maintain and repair pneumatic valves and controls.

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7. Oversee the work of student workers in performing regularly scheduled maintenance; train students in motor replacement and skilled electrical trades.
8. Provide assistance in inspecting electrical circuits, dampers and valves; troubleshoot and repair electrical and HVAC systems.
9. Estimate time, materials and equipment required for jobs assigned; order parts, equipment and materials from vendors.
10. Prepare and maintain various logs and records of preventive maintenance, repair and service work performed.

Marginal Functions:

1. Inspect the work of outside contractors as required.
2. Perform related duties and responsibilities as required.

QUALIFICATIONS

Knowledge of:

Methods of installation, repair, inspection and maintenance of heating, ventilation, air conditioning and refrigeration equipment.

Operational characteristics of heating, ventilation, air conditioning and refrigeration control systems including electronic controls.

Theories and applications of electricity.

Principles of refrigeration and properties of refrigerants.

Indoor air quality issues and solutions.

Principles and practices of preventive maintenance.

Operational characteristics of a variety of maintenance and repair equipment relative to HVAC systems.

Basic methods and techniques of training.

Principles and procedures of record keeping.

Occupational hazards and standard safety practices.

Regulations and applicable laws regarding the use and disposal of various hazardous materials.

Ability to:

Install, maintain, repair and service heating, ventilation, air conditioning and refrigeration equipment.

Perform regularly scheduled preventive maintenance on all assigned equipment.

Use and operate equipment and tools used in maintaining HVAC equipment in a safe and effective manner.

Oversee the work of and train student workers.

Maintain detailed and accurate records of work performed.

Work independently in the absence of supervision.

Understand and follow oral and written instructions.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of work.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities.

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Experience and Training Guidelines

Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

Experience:

Four years of increasingly responsible HVAC maintenance and repair experience.

Training:

Equivalent to the completion of the twelfth grade supplemented by specialized training in HVAC repair or a related field.

License or Certificate

Possession of, or ability to obtain, an appropriate, valid driver's license.

WORKING CONDITIONS

Environmental Conditions:

Field environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, gases, electrical energy; work or inspect in confined spaces, at heights on scaffolding and ladders and with machinery.

Physical Conditions:

Essential and marginal functions may require maintaining physical condition necessary for walking or standing for prolonged periods of time; heavy, moderate or light lifting and carrying; bending, stooping, kneeling, crawling, climbing; operating motorized equipment and vehicles; near visual acuity to inspect equipment and machinery.