



For the future of every student

CLASS TITLE: ELECTRICIAN

BASIC FUNCTION:

Under the direction of the Maintenance Manager, perform skilled electrical work in the inspection, repair, alteration, installation and maintenance of electrical and electronic systems, circuits, wiring and equipment.

REPRESENTATIVE DUTIES:

ESSENTIAL DUTIES:

Perform skilled electrical work in the inspection, repair, alteration, installation and maintenance of electrical and electronic systems, circuits, wiring and equipment; troubleshoot and resolve electrical malfunctions; trace out wiring, perform diagnostic tests on system components and replace defective wires and parts; assure compliance with building codes applicable to the electrical trade.

Inspect, repair, install, test, service and maintain low voltage and high voltage electrical systems, including circuits, conduit, generators, transformers, pumps, fans, breakers, motors, switchboards and various electrical appliances; replace power cords, equipment and components as needed.

Troubleshoot, diagnose and repair electrical fixtures, equipment and systems; install and replace lamps, light fixtures, ballasts, switches, receptacles, controls and other electrical accessories; trace out wiring, perform diagnostic tests on system components and replace defective wiring and parts.

Maintain and repair alarm, public address, intercom, security, clock, emergency and other electronic systems, devices and equipment; configure and adjust setting for clock and related sound systems; troubleshoot and resolve electronic malfunctions.

Install, maintain and repair electrical wiring and cabling; assemble and bend conduit and pull wire; install new circuits or replace existing circuits as needed; repair or replace power outlets as necessary.

Perform preventive maintenance on District-wide electrical systems, circuits and equipment; service, maintain and repair electrical panels, breakers and transformers; clean, lubricate, adjust and monitor controls, parts and timers for various motorized and mechanical equipment.

Estimate labor, material and equipment needed for assigned projects; prepare cost estimates; monitor inventory levels of materials and equipment; order, receive and maintain adequate inventory of materials and equipment.

Plan, organize and lay out assigned tasks; interpret electrical plans, diagrams, blue prints, sketches and specifications; work from verbal and written instructions and work orders.

Inspect, maintain and repair various kitchen, cafeteria and maintenance appliances, tools and equipment as assigned.

Operate a variety of specialized equipment including meters, testers, drills, lifts and various hand and power tools; drive a vehicle to conduct work.

Participate in Department-wide projects and assist other trades workers with maintenance and repair projects as needed.

Communicate with District personnel and various outside agencies to exchange information and resolve issues or concerns.

Maintain various records related to worker orders, materials and assigned activities.

Maintain work areas, equipment and tools in a safe, clean and orderly condition.

OTHER DUTIES:

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Methods, procedures, equipment and materials used in the installation, maintenance, repair and operation of electrical equipment and systems.

National Electrical Code (NEC), California Electrical Code (CEC), Universal Building Code (UBC) and Occupational Safety & Health Administration (OSHA) regulations and requirements.

Building codes related to the electrical trade.

Operation and maintenance of tools and equipment used in the electrical trade.

Proper methods of storing equipment, materials and supplies.

Shop math applicable to the building trades.

Technical aspects of the electrical trade.

Appropriate safety precautions and procedures.

Electrical blueprints.

Oral and written communication skills.

Record-keeping techniques.

Proper lifting techniques.

ABILITY TO:

Perform skilled electrical work in the inspection, repair, alteration, installation and maintenance of electrical and electronic systems, circuits, wiring and equipment.

Troubleshoot and diagnose electrical device, system and equipment malfunctions.

Replace defective parts and components as necessary.

Operate and maintain specialized equipment and tools used in the electrical trade.

Read and work from plans, blue prints, sketches, specifications and diagrams of electrical work.

Observe health and safety regulations and procedures.

Estimate material, equipment and supply needs.

Plan and lay out electrical work.

Communicate effectively both orally and in writing.

Work cooperatively with others.

Meet schedules and time lines.

Understand and follow oral and written instructions.

Work independently with little direction.

Maintain various records related to work performed

Establish and maintain cooperative and effective working relationships with others.

Maintain regular and consistent attendance.

EDUCATION AND EXPERIENCE:

Requires any combination equivalent to an Associates degree in Electrical Technology, Electrical Engineering or related field, and four years of diversified journeyman level electrician experience;

additional applicable experience may substitute for higher education on a year-for-year basis. Alternatively, may require graduation from high school or equivalent supplemented by completion of a formal electrician apprenticeship (which is 4 years, leading to journey-level credentials) and four years of diversified journeyman level electrician experience.

LICENSES AND OTHER REQUIREMENTS:

Valid California driver's license.

Valid State of California General Journeyman Electrician certification *highly desirable*.

WORKING CONDITIONS:

ENVIRONMENT:

Indoor and outdoor work environment.

Regular exposure to fumes, dust, dirt, oil and grease.

Driving a vehicle to conduct work.

PHYSICAL DEMANDS:

Dexterity of hands and fingers to operate specialized equipment and tools.

Hearing and speaking to exchange information.

Seeing to read and perform electrical maintenance functions.

Lifting, carrying, pushing or pulling heavy objects as assigned by the position.

Reaching overhead, above the shoulders and horizontally.

Bending at the waist, kneeling or crouching.

Climbing ladders and working from heights.

Sitting or standing for extended periods of time.

Heavy physical labor.

HAZARDS:

Working around and with machinery having moving parts.

Electrical power supply and high voltage.

Working at heights.

Working in a cramped or restrictive work chamber.

Approved by Personnel Commission: 09/19/2007
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