

ELECTRICIAN

DEFINITION

Performs skilled journey-level electrical work in the installation, maintenance, alteration, and repair of a variety of electrical systems and equipment related to light, heat, communications, and power at a college.

TYPICAL DUTIES

Lays out, assembles, installs, tests, maintains, and repairs such electrical fixtures and apparatus as conduits, meters, panels, control boards, lights, fans, heaters, fire alarms, bell and buzzer systems, field lighting systems, clock systems, telephone systems, switch gear, and wall, floor, and ceiling receptacles.

Installs interior and exterior wiring for equipment and appliances; bends conduits, cuts, drills, and channels concrete floors and walls for conduits and related installations or repairs.

Installs wires and cables in conduits.

Installs data cable and security systems.

Installs, tests, maintains and replaces electronic controls for electrical and power apparatus.

Performs electrical work such as rewiring or replacement of lamps on lighting poles at athletic fields, parking lots, and other District facilities.

Performs maintenance on high voltage systems, rated up to 600 volts, when the systems are de-energized.

Reviews plans, blueprints, and specifications for electrical projects to understand scope of project, complete assigned work orders, and to recommend potential changes to supervisor.

Attends to trouble calls for emergency repairs to electrical systems and equipment.

Safely operates hand and power tools and equipment used in the electrical trade.

Maintains electrical hand and power tools and equipment to ensure their safe and efficient operation.

May assist in planning and developing modifications to existing electrical systems.

May inspect facilities for maintenance and safety problems related to electrical systems and equipment.

May assist in the inspection of electrical work performed by outside contractors.

May assist in developing specifications, diagrams, and blueprints related to electrical work.

May assist in estimating job costs, preparing material lists and job records, and maintaining an inventory of supplies and tools for assigned area/projects.

May provide work direction to staff assigned to the electrical unit.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

An **Electrician** performs skilled journey-level electrical work in the installation, maintenance, alteration, and repair of a variety of electrical systems and equipment related to light, heat, communications, and power at a college.

DISTINGUISHING CHARACTERISTICS (Cont.)

A **General Foreman** plans, coordinates, and supervises the work of skilled journey-level workers of at least three building trades and other staff assigned to work projects at a college, and has job site responsibility for various building trades projects.

A **Lead Electrician** acts as a lead over a small group of journey-level workers of the electrical trade and other assigned staff and performs the more complex work related to the installation, maintenance, and repair of a variety of electrical systems and equipment related to light, heat, communications, and power at a college. Lead responsibilities include guidance and instruction on techniques, methods, and procedures for accomplishing assigned tasks and solving problems. A small group of employees typically consists of at least three people, two of whom must be at the journey-level.

SUPERVISION

General supervision is received from a General Foreman or facilities management staff. May provide work direction to Maintenance Assistants.

CLASS QUALIFICATIONS

Knowledge of:

Basic solid state circuitry related to electrical fixtures and apparatus

The electrical operations of: motor controls, machine shop equipment, traffic control equipment, and electric vehicles

Current practices, materials, hand and power tools, and equipment used in the electrical trade

Design, installation, and maintenance of electrical systems and equipment, including fire alarms

Troubleshooting techniques used in detecting malfunctions of electrical systems and equipment

Federal, state, and local electrical codes, regulations, administrative orders, and ordinances

Pertinent safety orders issued by the Division of Industrial Safety and safety practices pertaining to work on up to 600 volts electrical systems

Modern commercial and industrial building construction

Harmful effects of hazardous or toxic materials, and the protection and safeguards required when working with or controlling such materials

Basic recordkeeping procedures

Capabilities of computer applications, systems, and hardware used in the electrical trade

Skill in:

Using tools and equipment of the trade

Ability to:

- Lay out, assemble, install, test, analyze malfunctions of, and repair electrical fixtures, apparatus, control equipment, wire communications, and light and power systems for buildings
- Read, interpret, and work from wiring diagrams, schematics sketches, drawings, and blueprints
- Safely operate tools and machines of the electrical trade
- Safely lift heavy tools and materials
- Safely work at heights on ladders, scaffolds, or field poles
- Safely work under buildings or in restricted spaces
- Keep accurate records
- Work effectively and cooperatively with other staff, administrators, faculty members, and contractors
- Follow oral and written instructions
- Effectively utilize computer systems and software applicable to the electrical trade
- Learn the characteristics of new systems and equipment of the electrical trade and update skills to adapt to changing technology
- Learn general and specialized software applications

ENTRANCE QUALIFICATIONS

Education and Experience:

- A. Graduation from high school or its equivalent **AND** completion of a recognized apprentice training program of at least four years' duration in the electrical trade **AND** one year of full-time, paid journey-level experience in the electrical trade.

OR

- B. Graduation from high school or its equivalent **AND** five years of full-time, paid experience in electrical work under the supervision of a journeyman or crafts supervisor. One year of the required experience must have been at the journey-level.

Special:

- A valid Class "C" California driver's license.
- Access to an automobile.

SPECIAL NOTE:

Prior to employment, all successful candidates will be required to pass an asbestos medical examination in compliance with the General Industry Safety Orders, Section 5208, Title 8 of the California Administrative Codes.