

ELECTRONICS LABORATORY TECHNICIAN

DEFINITION

Prepares and assembles materials and equipment used in electronics experiments and demonstrations; performs minor maintenance on electronic equipment; assists students and faculty with instructional activities; and orders, issues, receives, and stores electronics materials and supplies.

TYPICAL DUTIES

Schedules and oversees the use of one or more electronics laboratories by students, faculty and staff.
Instructs students individually in the proper and safe use and operation of a variety of equipment and tools and orients students to established policies within the instructional laboratory.
Issues and receives materials and equipment for student use in laboratory and classroom assignments; keeps records and effects the return of supplies and equipment checked out to students.
Makes simple performance tests on electronic equipment.
Performs non-precision calibration and minor repair of electronic test equipment.
Assembles, installs, and services a variety of equipment used in an electronics technology instructional program.
Assists instructors in the set-up of equipment for laboratory demonstrations and student experiments.
Maintains inventory records and prepares periodic inventory reports and requisitions as needed.
Maintains a file of vendors' catalogs and equipment manuals.
Stores supplies and equipment and keeps storerooms and work areas orderly and clean.
Performs software installations and updates of programs.
May provide training and work direction to student employees.
Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

An **Electronics Laboratory Technician** applies knowledge of electronics in performing a broad range of duties related to the day-to-day operations of laboratories which include the preparation of electronics supplies, materials, and equipment; maintenance of equipment and facilities; storekeeping functions; and proper and safe use of equipment and materials.

An **Electronics Technician** installs, maintains, repairs, modifies, and tests a wide variety of electronics equipment such as radio, video, television, audio-visual equipment, public address systems, and electronic instructional aids.

SUPERVISION

General supervision is received from a Department Chair. Functional supervision is received from instructional staff. Work direction may be provided to student employees.

CLASS QUALIFICATIONS

Knowledge of:

- Common test equipment, supplies, and hand tools used in electronics work
- Kinds, uses, identification of, and techniques for testing electronic component parts
- Fundamentals of Electronics
- Safety standards related to the preparation of materials and use of electronics equipment
- Capabilities of computer systems, software and hardware common to instructional laboratories
- Principles of recordkeeping

Ability to:

- Provide instructional assistance to students and instructional staff
- Effectively and safely operate, adjust, and repair a variety of equipment used in an electronics laboratory including electronic test equipment such as digital oscilloscopes, digital voltmeters, analog and digital multimeters, capacity checkers, inductance bridges, and grid dip meters in making routine tests
- Use computer schematic capture and circuit analysis software
- Read and interpret schematic wiring diagrams
- Solder and otherwise assemble small parts
- Keep detailed and precise records
- Work effectively and cooperatively with students and instructional staff
- Give clear and concise instructions
- Effectively utilize computer hardware and software
- Learn general and specialized software applications

ENTRANCE QUALIFICATIONS

Education and Experience:

An associate degree or its equivalent, from a recognized college or university, with a major in electronics or a closely related field.

OR

Graduation from high school or its equivalent **AND** two years of full-time paid experience as a technician which involved knowledge of electronic tools, parts, and equipment.