

VICTOR VALLEY COMMUNITY COLLEGE DISTRICT

CLASS TITLE: ELECTRONICS LAB SPECIALIST

FLSA STATUS: NONEXEMPT

BASIC FUNCTION:

Under the direction of the Dean of Business and Industry, coordinate the operation and equipment of the Electronics Laboratory to assure a properly equipped and staffed lab; perform advanced and technical instructional reinforcement and demonstrations in an electronics lab environment; operate technical equipment and tools and demonstrate safe and proper operation; operate and calibrate test equipment; develop and prepare lab experiments, exercises and teaching aids; prepare and maintain a variety of records related to lab activities.

REPRESENTATIVE DUTIES:

Coordinate the operation and equipment of the Electronics Laboratory to assure a properly equipped and staffed lab; determine system requirements and cost estimates for new electronic equipment, computers, computer software, and electronics experiments to support the present and projected curricula. *E*

Determine requirements and cost estimates for equipment maintenance, spare parts, electronic experiment kit parts and replacements, and for miscellaneous supplies. *E*

Monitor the use of computers, tools and other equipment; operate technical equipment and tools used in the electronics lab, including electronic test equipment, satellite systems, communications systems, and meters; demonstrate and enforce safe and proper equipment operation. *E*

Operate a variety of technical equipment, including oscilloscopes, digital and analog test meters, signal generators, frequency counters, digital and microprocessor trainers, programmable IC station, diode and transistor testers, satellite communication system. *E*

Maintain electronic and computer equipment and tools and the lab facility in proper working condition; repair, calibrate, renovate and upgrade lab equipment; notify appropriate personnel regarding major maintenance and repair needs; discuss malfunctions and needed technical support with vendors. *E*

Design and implement new laboratory experiments, including electronic and mathematic computer software lessons; prepare lab exercises, demonstrations and other teaching aids; ensure lab techniques and experiments meet university-level requirements. *E*

Prepare and maintain a variety of records and reports related to lab activities; administer and score tests and assignments; maintain attendance, discipline and grade records, progress records, and other student records; discuss curriculum and student progress and

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behavior with academic staff. *E*

Assist academic staff with planning curriculum, lesson plans, assignments and instructional materials; assist with the research and purchase of supplies and materials for the lab. *E*

Perform advanced and technical instructional reinforcement and demonstrations in an electronics lab environment, including related mathematics course work, electronic theory and lab operation; assist students in understanding concepts and in skill acquisition. *E*

Assist students individually and in small groups with computer and related software operation, lab assignments, projects and lessons; oversee and inspect student work performed on electronic equipment. *E*

Screen, hire and train tutors to assist students with electronics experiments, computer operations and applications, electronics theory and technical mathematics, including algebra, trigonometry and calculus. *E*

Negotiate procurement of equipment and equipment procurement with various vendors; maintain records of purchase requisitions and orders. *E*

Maintain inventory records of hardware, software, tools and equipment; maintain a reference library of inventory records and vendor catalogs.

Perform related duties as assigned.

KNOWLEDGE AND ABILITIES:

KNOWLEDGE OF:

Operation and proper and safe use of a variety of tools, equipment, hardware and software used in the assigned instructional lab.

Electronics technology and theories and satellite communications.

Determining system requirements and cost estimates for new lab equipment.

Instructional and reinforcement methods and techniques.

Computer hardware and software applications utilized in electronics lessons and experiments.

Lab experiment design and procedures and appropriate student conduct.

Student guidance principles and practices.

Interpersonal skills using tact, patience and courtesy.

Health and safety practices and procedures used in an electronics lab.

Advanced mathematics and applications related to the lab.

Methods and guidelines for purchasing, inventorying and storing equipment, materials and supplies.

Proper lifting techniques.

ABILITY TO:

Coordinate the operation and equipment of the Electronics Laboratory to ensure a

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properly equipped and staffed lab.

Operate and calibrate test equipment.

Operate a variety of tools, equipment and machinery of an electronics lab.

Repair, calibrate, renovate and upgrade lab equipment.

Design and implement new laboratory experiments, including electronic and mathematic computer software lessons.

Instruct students in the proper use, operation and safety of technical equipment, tools and machinery.

Apply and explain policies and objectives of lab programs and activities.

Reinforce instruction to individuals or small groups of students as directed by an instructor.

Perform maintenance and repairs on assigned electronics equipment and tools.

Communicate subject matter in a clear and accurate manner.

Exercise patience, tact and sensitivity with students.

Establish and maintain cooperative and effective working relationships with others, including those from diverse academic, socioeconomic, cultural, ethnic and disability backgrounds.

Monitor, observe and oversee student behavior according to approved policies and procedures.

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

Observe and report safety hazards and needs for facility maintenance and repair.

Understand and follow oral and written directions.

Complete work with constant interruptions.

Perform physical labor.

EDUCATION AND EXPERIENCE:

Any combination equivalent to: Associate's degree in electronics, electronics theory or closely related field and three years of increasingly responsible experience in the electronics field using equipment and theories utilized by the District, including at least one year in a computerized instructional support capacity involving some lab coordination responsibilities.

WORKING ENVIRONMENT AND PHYSICAL DEMANDS:

Disclosure:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

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Electronics Laboratory Environment:

While performing the duties of this job the employee is required to perform moderate lifting (up to 45 pounds); reach overhead; bend at the waist; push and pull objects; stand for extended periods of time; speak to communicate instructions; see to observe student work and behavior; and use fingers and hands to operate technical electronics tools and equipment.