

ENGINEERING LABORATORY TECHNICIAN

DEFINITION

Prepares and assembles materials and equipment used in engineering experiments and demonstrations; operates and services engineering and drafting equipment; assists students and faculty with instructional activities; and orders, issues, receives, and stores laboratory materials and supplies.

TYPICAL DUTIES

Assembles supplies and constructs apparatus; sets up and may assist in conducting classroom experiments and demonstrations.

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(ies).

Issues and receives materials and equipment for student use in laboratory and classroom assignments; keeps records and effects the return of supplies and equipment loaned to students.

Schedules and oversees the use of engineering computer facilities by faculty, staff, and students.

Performs software installations and updates of programs for assigned area.

Operates, maintains, and makes minor adjustments and repairs on equipment such as blueprint machines, rapid prototyping machines, tensile and compaction testers, power saws, drills, lathes, and milling machines.

Maintains inventory records of supplies, material and equipment and prepares requisitions as needed.

Stores supplies and equipment and keeps storerooms and working areas orderly and clean.

May provide assistance to students in the use of specialized computer aided drafting programs.

May provide assistance in LAN (Local Area Network) operation and maintenance of assigned computer laboratory(ies) related to the installation and configuration of workstations and basic troubleshooting of network malfunctions.

May assist academic staff with research of product specifications related to software and hardware purchasing options.

May assist academic staff in writing instructions and designing apparatus for specialized experiments and classroom demonstrations.

May assist with department outreach activities.

May provide training and work direction to student employees.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

An **Engineering Laboratory Technician** applies knowledge of engineering technology in performing a broad range of duties related to the day-to-day operations of an engineering laboratory which include the preparation of materials and equipment; maintenance of equipment and facilities; storekeeping functions; and proper and safe use of equipment and tools.

DISTINGUISHING CHARACTERISTICS (Cont.)

A **Physical Sciences Laboratory Technician** applies knowledge of the physical sciences and scientific laboratory procedures and techniques in performing a broad range of duties related to the day-to-day operations of a physical sciences laboratory which includes the preparation of materials and equipment; maintenance of equipment and facilities; and storekeeping functions.

SUPERVISION

General supervision is received from a Department Chair. Functional supervision is received from instructional staff. May provide work direction to student employees.

CLASS QUALIFICATIONS

Knowledge of:

- Basic principles of engineering and drafting
- Equipment and supplies used in the various fields of engineering
- Health and safety practices and precautions applicable to an engineering laboratory
- Capabilities of computer systems, software and hardware common to engineering laboratories
- Principles of recordkeeping

Ability to:

- Provide instructional assistance to students and instructional staff
- Operate, explain, and demonstrate the proper and safe utilization of a variety of equipment and tools
- Follow complex instructions in the preparation and construction of supplies and equipment setups
- Operate, adapt, and maintain engineering and drafting equipment
- Effectively utilize computer hardware and software
- Perform minor repairs and adjustments to a variety of laboratory equipment
- Maintain an inventory of equipment and tools
- Make arithmetic computations
- Keep detailed and precise records
- Work effectively and cooperatively with students and instructional staff
- 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 engineering 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 familiarity with engineering and drafting equipment and supplies.