

LABORATORY TECHNICIAN – MATH AND COMPUTER SCIENCES

DEFINITION

Under general supervision, provides technical and instructional support services for faculty and students; prepares and sets up computer laboratory exercises, demonstrations, instructional materials, and supplies; assists students and faculty in the use and operation of computer equipment, peripherals, and materials related to the District's Mathematics and Computer Science programs.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Dean, Natural Sciences. Exercises no direct supervision of staff. Provides technical and functional direction and training to student workers; may provide technical direction to instructional tutors.

CLASS CHARACTERISTICS

This is a journey-level class responsible for conducting a variety of technical and instructional support activities to ensure student learning. Incumbents perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Incumbents at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of assigned area of responsibility. This classification is distinguished from other laboratory technicians by having subject matter expertise in the District's Mathematics and Computer Science programs, equipment, and materials.

EXAMPLES OF ESSENTIAL FUNCTIONS (Illustrative Only)

- Prepares and sets up computer laboratory assignments, exercises, demonstrations, and instructional materials; monitors computer laboratory environment; organizes, arranges, stocks, and distributes materials, equipment, and supplies.
- Provides technical and instructional support services for the District's Mathematics and Computer Science programs; assists in instructional demonstrations of procedures and techniques; explains related principles, practices, procedures, methods, materials, terminology, tools, and equipment.
- Proctors, administers, and monitors make-up exams and quizzes.
- Maintains facilities and computer equipment and peripherals, such as monitors, video players, cassette recorders, laser disc systems, and computer terminals; ensures proper storage of laboratory equipment; ensures work areas are maintained in a clean and orderly condition.
- Maintains accurate logs, reports, and records of work performed and materials and equipment used, as well as, laboratory usage schedules.
- Monitors, orders, receives, stores, and maintains adequate inventory levels of supplies and equipment as directed.
- Submits work orders for maintenance and repair of equipment and facilities; makes minor facilities and equipment repairs.
- Provides instructional assistance in computer assignments; provides tutoring in computer programming.
- Evaluates, responds to, and resolves requests for computer assistance from faculty and students; assists users experiencing problems with hardware, software, networking, and other computer related technologies.
- Diagnoses problems, performs remedial actions to correct problems, and/or recommends and determines solutions.
- Researches, resolves, and follows up on user problems; refers more complex problems to specialized or higher level personnel.

- Installs, or assists personnel in the installation of personal computers, software, and peripheral components such as monitors, keyboards, printers, disk drivers, and cabling in the computer laboratory.
- Instruct users in software applications usage and basic computer navigation; advises users on best security practices.
- Installs and maintains laboratory equipment, example, printers, copiers and scanners, addressing both hardware and software issues.
- Assists in coordinating activities with help desk, network services, or other information technology staff.
- Assists students with the use of laboratory software and hardware in the completion of student's laboratory assignments.
- Provides updates, status, and completion information to personnel and/or users via voice mail, e-mail, or in-person communication.
- Researches and purchases tools, supplies and repair parts from a variety of sources.
- Learns and applies emerging technologies and, as necessary, to perform duties in an efficient, organized, and timely manner.
- Performs other related duties as assigned.

QUALIFICATIONS

Knowledge of:

- Terminology, techniques, equipment, materials, principles, theories, practices, and procedures related to the District's Mathematics and Computer Science programs.
- Principles and practices used in the operations, maintenance, and administration of network operating systems, personal computer system hardware, and related software systems.
- Techniques and methods of computer hardware and software evaluation, implementation, and documentation.
- Personal computer and network system application software packages, including word-processing and spreadsheets.
- Personal computers and peripherals, as well as, network hardware, including hubs, switches, and cabling.
- Troubleshooting, configuration, and installation techniques.
- Computer hardware, software, network technology, and operating system products.
- Occupational hazards and standard safety procedures.
- General methods and procedures for preparing course materials and laboratory exercises and demonstrations used in various Mathematics and Computer Science programs.
- Set-up, operation, demonstration, and maintenance of various equipment used in the District's Mathematics and Computer Science programs.
- Methods, practices, and techniques of student learning and instruction.
- Modern office practices, methods, and computer equipment and applications related to the work.
- Record keeping principles and procedures.
- English usage, spelling, vocabulary, grammar, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, students, and District staff, including individuals of various ages, disabilities, various socio-economic and ethnic groups.

Skills & Abilities to:

- Perform a variety of functions in the operation of computer equipment and peripheral components, including LAN and WAN systems; troubleshoot related problems and take appropriate action.
- Identify and resolve hardware and software problems and perform minor repairs.

- Setup PC and network hardware and install and configure software.
- Train staff on software applications and hardware usage.
- Explain principles, practices, procedures, methods, materials, tools, terminology, and equipment related to the assigned Mathematics and Computer Science programs.
- Assist students and faculty in the use and operation of equipment and materials related to the assigned Mathematics and Computer Science programs.
- Create an engaging and positive learning in the computer laboratory, or other learning environments.
- Demonstrate proper use and maintenance of equipment, materials, and supplies used in the assigned Mathematics and Computer Science programs.
- Interpret, apply, and explain applicable District policies, rules, and regulations related to areas of responsibility.
- Estimate and order required supplies and equipment.
- Establish and maintain a filing, record keeping, and tracking systems.
- Organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software applications programs.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Understand scope of authority in making independent decisions.
- Review situations accurately and determine appropriate course of action using judgment according to established policies and procedures.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience which would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to an Associate’s degree from a regionally accredited college with major coursework in mathematics, computer science, or related field, and responsible instructional and technical experience performing technical support in a multi-user environment.

Licenses and Certifications:

- The incumbent may periodically be required to travel to a variety of locations. If required to operate a vehicle in the position, employees must demonstrate possession of a valid California Driver’s License.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle to visit various District sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. This classification primarily works in an office and standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Incumbents in this classification frequently bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 50 pounds, and occasionally heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office and student center environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may

interact with staff, students, and/or the public in interpreting and enforcing departmental policies and procedures.