CLASS SPECIFICATION
Microbiology Laboratory Specialist

FLSA Status: Nonexempt
EEOC Job Category: Professionals
Union Representation: Represented

GENERAL PURPOSE
Under general supervision, maintains and manages a microbiology laboratory; coordinates and prepares materials for laboratory classes, exercises and experiments; orders, stores and inventories lab materials, supplies and consumables; maintains safety and cleanliness of lab equipment and facilities; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS
Microbiology Laboratory Specialist is responsible for overseeing and maintaining a microbiology laboratory including maintaining an inventory of required materials, supplies and consumables and preparing and setting up equipment and materials for laboratory classes, exercises and experiments. The incumbent is responsible for ensuring the safety and cleanliness of laboratory equipment and facilities. Work assigned requires a detailed knowledge of the scientific subject matter applicable to the assignment and the ability to assist in providing instruction to others in an effective manner.

ESSENTIAL DUTIES AND RESPONSIBILITIES
The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Maintains, manages and oversees the activities of a microbiology laboratory; prepares and sets up equipment and materials for laboratory exercises and experiments; calculates, measures and prepares a wide variety of microbiological media, stains and reagents using appropriate aseptic techniques; filters and makes adjustments to media to obtain the best experiment results; grows live cultures and collects specimens; properly stores and transfers microbiology cultures; takes down, cleans and stores instruments, equipment, glassware, materials and supplies following lab sections and experiments.

2. Coordinates multiple lab sections and assures efficient microbiology laboratory operations; creates and prepares lab schedules; plans for incubation periods for scheduled lab experiments; assists faculty in conducting laboratory experiments and demonstrating proper usage of equipment, materials and computers; creates laboratory handouts.

3. Operates a variety of scientific and technical equipment including autoclaves, safety cabinets, biological incubators, microscopes, digital stirring hotplates, automatic dispensers and lab ovens; inspects, maintains and ensures all laboratory equipment is in proper operating condition; ensures the security of all laboratory equipment and materials.
4. Provides technical assistance and recommends specifications for equipment and instructional materials; troubleshoots, adjusts, maintains and performs minor repairs to equipment and reports major repair needs according to established procedures.

5. Confers with the Department Chair and faculty on scheduling of laboratory sections and operational aspects of the laboratory, including major maintenance and replacement of equipment; develops and recommends changes and improvements in operations; plans, designs and recommends remodeling of microbiology laboratory instructional facilities.

6. Determines types and amounts of materials and supplies to order for lab exercises and experiments; schedules preventative maintenance inspections of equipment and autoclaves; schedules major maintenance and repairs; researches and identifies vendors for laboratory chemicals, media, reagents and other supplies and equipment; selects vendors and obtains quotes; prepares requisitions and purchase orders to order and maintain an inventory of lab equipment, chemicals, media, reagents, supplies and materials.

7. Ensures proper maintenance and cleanliness of lab equipment and facilities to ensure the health and safety of students, faculty and staff; ensures proper handling, storage and sterilization of chemicals, biological specimens and solutions; disposes of contaminated and bio hazardous materials in accordance with state and federal requirements.

8. Prepares and maintains a variety of lab records; tracks laboratory orders and expenses to ensure budget amounts are not exceeded; files and consults material safety data sheets; maintains records of student worker hours.

9. Supervises work study students assigned to the program; coordinates and assigns work; monitors and provides instruction on safe work practices and procedures; trains new stockroom workers in the setting up of labs for different courses; provides performance feedback; prepares and submits time cards for student workers.

OTHER DUTIES

1. Tests and evaluates new media products and chemical reagents for use in the laboratory.

2. Attends a variety of meetings, training sessions, seminars and workshops as required.

QUALIFICATIONS

Knowledge of:

1. Theory, principles, laws and scientific fundamentals applicable to assigned responsibilities in a microbiology laboratory.

2. Uses of various chemicals, media, reagents, stains and microbiology cultures and solutions in reinforcement of science classroom instruction.

3. Use and operation of standard microbiology laboratory equipment.

4. Laboratory safety rules, practices and procedures, including the handling, storage and disposal of specimens, chemicals and hazardous materials in accordance with state and federal laws and regulations.
5. Standard formulas and equations, solutions, substances, weights and measures, reactions and symbols applicable to the assigned science subjects areas and laboratory.

6. Procedures for the preparation and storage of media, reagents, stains and cultures, including aseptic methods.

7. Correct English usage, including spelling, grammar and punctuation.

8. Administrative practices and procedures, including purchasing, record keeping and filing practices and procedures.

**Ability to:**

1. Assist instructors in planning, organizing and preparing classroom and laboratory materials and experiments.

2. Demonstrate the safe and efficient operation of specialized microbiology lab instrumentation and equipment.

3. Operate a variety of microbiology instruments, equipment and materials, while maintaining sterile conditions.

4. Prepare microbiological media, reagents and stains and grow, store and transfer live cultures.

5. Follow and instruct others on established laboratory safety rules, practices and procedures.

6. Operate a computer and other standard office equipment.

7. Organize, set priorities and exercise sound judgment within areas of responsibility.

8. Organize and maintain records and files.

9. Communicate clearly and effectively, both orally and in writing.

10. Understand and follow written and oral instructions.

11. Use tact, discretion, courtesy and patience in dealing with sensitive and difficult students and situations.

12. Establish and maintain effective working relationships with District management, faculty, staff, students and others encountered in the course of work.

**Education, Training and Experience:**

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in microbiology or a closely related field; and at least one year of experience working with college-age students in an organized, educational environment; or an equivalent combination of training and experience.

**Licenses; Certificates; Special Requirements:**

None.
PHYSICAL AND MENTAL DEMANDS
The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands
While performing the duties of this class, an employee is regularly required to stand, walk and sit; talk or hear, both in person and by telephone; use hands to finger, handle or feel objects or controls; reach with hands and arms. An employee also is regularly required to stoop, kneel, bend, crouch and lift up to 25 pounds.

Specific vision abilities required by this job include close vision, distance vision, depth perception, color vision and the ability to adjust focus.

Mental Demands
While performing the duties of this class, the employee is regularly required to use written and oral communication skills; read and interpret information; analyze and solve problems; observe and interpret people and situations; use basic math; learn and apply new information or skills; work under intensive deadlines and interact with District management, faculty, staff, students and others encountered in the course of work.

WORK ENVIRONMENT
The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee works in a lab setting and is exposed to fumes or airborne particles, toxic or caustic chemicals, biological hazards and risk of electrical shock. The noise level can be moderately loud.