



## Laboratory Technician III - Microbiology

Classified Range: 52

Board Approved: 12/12/25 P. 1|5

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed within the job; however, any additional duties will be reasonably related to this class.*

### **SUMMARY DESCRIPTION**

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Provides instructional support services for faculty and students by performing technical work in the microbiology laboratory setting.

### **SUPERVISION RECEIVED AND EXERCISED**

Receives minimal direction from supervisor; works from procedures and best practices on general objectives; refers only specific matters to supervisor. May provide technical and functional direction to student workers.

### **REPRESENTATIVE DUTIES**

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*The following duties are typical for this classification.*

1. Coordinates with faculty in the planning and implementation of experimental design and preparation of laboratory experiments; working from knowledge of the subject area, reference materials, course outline, and without specific instructions, organizes, sets up and prepares class demonstrations and experiments within the Microbiology laboratory; places and arranges equipment and models for instructional use; assembles and installs new equipment; ensures efficient laboratory operations.
2. Prepares cultures by propagation of viable pathogenic and non-pathogenic stock cultures of bacteria, viruses, and fungi; prepares, maintains, and performs quality control testing of all laboratory media used for the growth and propagation of microorganisms.
3. Troubleshoots microbiology experiments by using a systematic approach and research to identify and address issues that may arise during students running the experiment; collaborates with faculty to run new experiments.
4. Prepares and performs analyses on bacteria used for students to observe for mutation and effectiveness; maintains viability and quality control of bacterial cultures used during consecutive laboratory sessions; plans and directs critical time schedules necessary for the propagation of bacterial cultures by re-culturing to new growth media.
5. Prepares and dispenses hazardous and non-hazardous chemicals and solutions, and chemical materials used for lab classes including reagents, acids, bases, buffers, flammables, media, mutagens, stains, and unknowns.
6. Analyzes, categorizes, and properly stores hazardous waste according to all local, state, and federal guidelines; arranges for proper storage and disposal of toxic, hazardous waste, caustic or flammable chemicals; arranges for proper storage and disposal of toxic, caustic, or flammable chemicals.
7. Researches, inventories, orders, receives, and stocks materials, supplies, and equipment for laboratory use; determines and compiles lists of needed laboratory items and supplies for upcoming semester instruction; requests quotes from vendors; enters purchasing requests for needed items; receives and tracks missing items; arranges for returns of damaged items; searches for vendors for specialty items.



## Laboratory Technician III - Microbiology

Classified Range: 52

Board Approved: 12/12/25 P. 2|5

8. Assists in creating and updating lab manuals and other pertinent educational documents for laboratory teaching.
9. Issues and maintains records on materials loaned to students, instructors, and other departments; issues and maintains records on lockers and microscopes.
10. Demonstrates and provides direct assistance to students in the proper use and care of laboratory materials and equipment; assists in maintaining security of laboratories, laboratory equipment, supplies and materials.
11. Sterilizes tools, equipment, and supplies; sanitizes laboratory clothing, materials, and supplies.
12. Operates scientific equipment such as autoclave, analytical balance, chromatography and electrophoresis equipment, spectrophotometer, pH meter, biosafety cabinets, and microscopes.
13. Calibrates, maintains, and performs repairs on scientific equipment and supplies; researches and advises on the selection of equipment and supplies including acquiring contracts, certifications and maintenance agreements for equipment; prevents bacterial exposure to personnel, the lab environment, and contamination of bacterial growth media.
14. Monitors the production and collection of hazardous waste materials and toxic chemicals resulting from lab classes; collects and properly processes and disposes of biohazard waste and other prudent practices that conform to District, state, and federal requirements; coordinates with environmental health and safety on the development and implementation of related safety training programs.
15. Prepares and performs analyses on bacteria used for student unknown to observe for mutation and effectiveness.
16. Maintains expenditure records and provide data for budget estimates.
17. Maintains current knowledge of laws, policies, and procedures related to microbiology laboratory protocols and safety in regards to proper handling and storage of microorganisms, biological waste, and chemicals.
18. Performs other duties related to the primary job duties.

### **MINIMUM QUALIFICATIONS**

*The following generally describes the knowledge and ability required to enter the job and/or be learned within a short period of time in order to successfully perform the assigned duties.*

#### **CORE COMPETENCIES:**

##### **Critical Thinking**

- Analytically and logically evaluates information to resolve problems
- Follow guide, SOP or other step by step procedures for locating the source of a problem and fixing it
- May detect ambiguous, incomplete, or conflicting information or instructions\*\*

##### **Fact Finding**

- Obtaining facts and data pertaining to an issue or question



## Laboratory Technician III - Microbiology

Classified Range: 52

Board Approved: 12/12/25 P. 3|5

- Uses defined investigation and information search techniques

### Adaptability

- Responding positively to change and modifying behavior as the situation requires\*\*
- Accept and adjust to changes and the unfamiliar

### Attention to Detail

- Focusing on the details of work content
- Shows care and thoroughness in adhering to process and procedures that assure quality
- Applies knowledge and skill in recognizing and evaluating details of work\*\*
- Applies skilled final touches on products

### Listening

- Comprehend and verbal instructions and orally presented information
- Recalls or retrieves key points in a conversation
- Listen actively by rephrasing others' input cogently and accurately\*\*

### Using Technology

- Working with electronic hardware and software applications
- Using basic features and functions of software and hardware
- Experiments and finds novel uses for standard features and functions \*\*
- Adds, improves, modifies, or develops features and functionality\*\*

### Customer Focus

- Attending to the needs and expectations of customer
- Seeks information about the immediate and longer term needs of the customer
- Anticipates what the customer may want or expect in a product or service
- Works across organizational boundaries to meet customer needs \*\*

### Reading Comprehension

- Understanding and using written information
- Knows the meaning of printed words; comprehend the literal meaning of text
- Make interpretations, applications, deductions, inferences, extrapolations from written information \*\*

### Professional and Technical Expertise

- Applying technical subject matter to the job \*\*
- Applies a mastery of knowledge and skill for performing across a wide range of technical or professional applications
- Possess recognized expertise outside of the organization\*\*



## Laboratory Technician III - Microbiology

Classified Range: 52

Board Approved: 12/12/25 P. 4|5

### Self-Management

- Follows through on instructions and assignments
- Self-directed and self-monitored in commitments and accomplishments
- Redefines or reprioritizes activities within scope of responsibility

### Valuing Diversity

- Shows acceptance of individual differences
- Welcomes input and inclusion of others who may be different from oneself
- Shows understanding and empathy for the challenges of groups seeking inclusion or dealing with perceived discrimination

*\*\*Lead, Advanced or Senior Level Positions*

### Education and Experience Guidelines

#### Education/Training:

- A Bachelor's Degree in Biology, Microbiology, or related field from an accredited college or university.

#### Experience:

- Four (4) years of experience as a laboratory technician in microbiology, biology, or a related.

### PHYSICAL DEMANDS AND WORKING ENVIRONMENT

*The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.*

**Environment:** Work is performed primarily in a classroom/laboratory setting; exposure to dusts, mists, fumes, moderately high levels of toxic chemicals, allergenic plants and materials; work with laboratory equipment apparatus.

**Physical:** Primary functions require sufficient physical ability and mobility to work in a classroom/laboratory setting; to stand or sit for prolonged periods of time; to occasionally stoop, bend, kneel, crouch, reach, and twist; to frequently lift, carry, push, and/or pull light to moderate amounts of weight up to 25 pounds; to occasionally lift, carry, push, and/or pull light to moderate amounts of weight with or without assistance; to operate office equipment requiring repetitive hand movement and fine coordination including use of a computer keyboard; and to verbally communicate to exchange information; requires the wearing of personal protective equipment including safety glasses or goggles, lab coats, gloves, respirators, or face shields.

**Vision:** See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

**Hearing:** Hear in the normal audio range with or without correction.



## Laboratory Technician III - Microbiology

Classified Range: 52

Board Approved: 12/12/25 P. 5|5