

Job Description

Job Title:	Microbiology/Molecular Laboratory Technician
Department:	Biology
Reports To:	Technical Manager
Jobs Reporting:	None
Salary Grade:	USG 8
Effective Date:	August 2023

Primary Purpose

The incumbent is responsible for developing and ensuring the smooth and successful execution of assigned laboratory courses for several undergraduate courses, in consultation with the Instructor and/or Faculty member responsible for each course. The primary areas of assignment for this position are microbiology and molecular biology. This position is equally accountable to the Technical Manager for technical issues, Administrative Officer for administrative issues, and The Associate Chair, Undergraduate Studies for course assignments.

Key Accountabilities

Course Work

- Prepare and provide requisite materials (e.g., media, reagents, cultures, specimens) for laboratory offerings (including student follow-ups as requested) for assigned courses, including laboratory equipment for the initial lab session plus any required follow-up for particular experiments
- Clean-up of the laboratory space with the appropriate handling and disposal techniques, including the disposal of hazardous materials at the end of each laboratory exercise
- Demonstrate proper and safe operation of equipment including: compound, dissecting and phase microscopes; autoclaves, centrifuges, fume hoods, biosafety cabinets, thermocyclers, gel electrophoresis and other specialized equipment
- Assist instructors and/or faculty members with the development of new experiments for teaching and research
- In consultation with Instructors and/or faculty members, trouble-shoot and/or update existing experiments to improve pedagogical practices
- Recommend changes, revisions and corrections to student lab manuals
- Create and maintain information related to the course laboratory function and operation which may serve as a guide for subsequent offerings
- Service teaching equipment and maintain records of service
- Support Teaching Assistants during lab sessions to trouble-shoot technical issues as they arise and/or explain the principles behind experiments

Administrative Duties

- Source, order, and maintain laboratory and preparation room supplies
- In consultation with instructors and faculty member(s) provide recommendations and costing to Associate Chair or Technical Manager for equipment to improve pedagogy
- Establish and maintain liaison with sales representatives for technical and other updates
- Prepare and maintain chemical inventory in accordance with UW and legislative requirements

Safety

- Maintain safety certifications as required by Safety Office

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- Update posted safety procedures including WHMIS, hazardous waste disposal etc. so that they are current
- Maintain safety records for teaching and technical spaces
- Maintain equipment certifications and the associated records
- Prepare and maintain current Standard Operating Procedures (SOPs)
- Maintain first aid kits
- Maintain a working alone procedure
- Maintain safety inspection reports (eye wash station, spill kits, etc.) and report to the Department and Safety Office as required

Other

- Serve as a technical resource person for faculty, research associates and students in the development of their research projects
- Fill in as a teaching assistant where necessary.
- Serve as a support person in other areas of department operations (laboratory preparation and clean-up for other courses, other department initiatives) as required on an occasional and short-term basis as assigned by the Chair, Associate Chair, Administrative Officer or Technical Manager
- May serve on Department committees
- May supervise co-op students

**All employees of the University are expected to follow University and departmental health and safety policy, procedures and work practices at all times. Employees are also responsible for the completion of all health and safety training, as assigned. Employees with staff supervision and/or management responsibilities will ensure that assigned staff abide by the above, and actively identify, assess and correct health and safety hazards, as required.*

Required Qualifications

Education

- BSc in Biology required, MSc preferred. Equivalent related education/experience will be considered.

Experience

- 3+ years' experience required. Requires broad knowledge of microbiology and molecular techniques, and competency in other fields including toxicology, physiology, cell biology, genetics and ecology.

Knowledge/Skills/Abilities

- Experience trouble shooting and working with scientific equipment is essential.
- Requires a sound understanding of the theoretical and practical aspects of lab offerings.
- Maintain current certification as required by the Safety Office.
- Ability to manage multiple priorities in a fast-paced environment is essential.
- Ability to think critically and make independent decisions.
- Ability to work with other technical staff in a team environment
- Excellent written and oral communication skills required.
- Basic skill level with Microsoft Office Suite (including MS Teams)

Nature and Scope

- **Contacts:** Significant internal relationships include Technical Manager, Administrative Officer, Department Chair and Associate Chairs, Biology faculty, graduate students, undergraduate students and research personnel, Departmental Technicians, Faculty, staff and graduate students across the

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Faculties of Science and in other units. Significant External relationships include Suppliers, External Contractors, IST/CHIP Office, Science Technical Services, Plant Operations and Central Stores.

- **Level of Responsibility:** The position has specialized work with minimal supervision and provides guidance to Teaching Assistants and Co-op students.
- **Decision-Making Authority:** The position works with the Technical Manager and Associate Chair, Undergraduate Studies to ensure proper interpretation and application of University policies and guidelines.
- **Physical and Sensory Demands:** Requires exertion of physical or sensory effort resulting in moderate fatigue, strain or risk of injury. Heavy lifting is required from time to time and the incumbent must be able to routinely lift approximately 50lbs.
- **Working Environment:** The working environment at times may be dusty and dirty. Lab environment with some exposure to chemicals that cause noxious odours. Evening and weekend hours are required.