

Job Description

Job Title:	Biology Lab Technician and Core Facility Coordinator
Department:	Biology
Reports To:	Administrative Officer and Associate Chair, Undergraduate Studies
Jobs Reporting:	None
Salary Grade:	USG 8
Effective Date:	March 2018

Primary Purpose

Under the direction of the Department of Biology core instrument committee, oversees and provides support for the day-to-day operation and longer term planning of upkeep/renewal of core facilities and instruments. Interacts with users (faculty, staff and students) to assess experimental needs and troubleshoot technical issues. The incumbent is also equally responsible for developing and ensuring the smooth and successful execution of assigned laboratory components for undergraduate courses, in consultation with the Instructor and/or Faculty member responsible for each course. The Biology Lab Technician is equally accountable to the Administrative Officer for administrative issues and The Associate Chair, Undergraduate Studies for technical issues.

Key Accountabilities

Core Facility Support

- Maintain and safely operate equipment under the jurisdiction of the Department of Biology core instrument committee. Examples of instruments include flow cytometer, sequencers, molecular imaging, microscopes, freezers, etc.
- Ensure that all equipment is calibrated.
- Create and maintain a list of service and infrastructure requests by faculty members and users
- Provide recommendations on service contracts and the repair and renewal of core instruments and facilities. Acquire specifications and quotes from suppliers
- Train users on the safe and appropriate operation of instruments
- Oversee access to core facilities by assigning security codes to users
- May serve as the technician representative on the Department of Biology core instrument committee
- Monitor and troubleshoot the departmental freezer alarm system to ensure that all freezers linked into the system are operational. Act as the first point of contact when problems occur, and will also provide support and guidance when new users are identified
- Order and distribute scientific materials to researchers
- Update website content

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 and any follow-up laboratory sessions 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
- Assist instructors or faculty members with the development of new experiments for teaching and research

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- In consultation with Instructors and/or faculty members, trouble-shoot and/or update existing experiments to improve pedagogy
- 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
- Support Teaching Assistants during lab sessions to trouble-shoot technical issues as they arise and/or explain the principles behind experiments

Administrative Duties

- Process marks for undergraduate courses (tutorials, labs, midterms and finals) including: compiling lab and tutorial marks, coordinating grading (e.g., Markbox), providing statistical summary of student outcomes for each course, and calculating and submitting final grades to the Registrar
- Process TA evaluations for analysis at the end of each term
- Source and order laboratory and preparation room maintenance supplies
- In consultation with instructors and faculty member(s) provide recommendations and costing to Associate Chair for equipment to improve pedagogy
- Establish and maintain liaison with sales representatives for technical and price update

Safety

- Maintain personal certifications as required by Safety Office
- Update posted safety procedures including WHMIS, hazardous waste disposal etc. so that they are current
- Maintain equipment certifications and the associated records
- Prepare and maintain current Standard Operating Procedures (SOPs)
- Maintain first aid kits
- Maintain safety inspection reports (eye wash station, spill kits, etc.) and report to the Department and Safety Office as required
- Ensure adherence to Health and Safety guidelines by all Core users

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 or Administrative Officer
- May serve on the Department of Biology Safety committee
- May serve as a back-up technician
- Maintain chemical inventory.
- Work with members of the department to clean up space as needed.
- May supervise co-op students, as needed.

**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

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- BSc in Biology is required, MSc in Science is preferred or equivalent related education/experience.

Experience

- At least 3 years' experience in setting up student lab courses. Must be highly trained and knowledgeable in flow cytometry and MiSeq, and other technological scientific instruments.

Knowledge/Skills/Abilities

- Trained and qualified in flow cytometry and the most contemporary sequencing technologies, and ability to advise students on experimental design.
- Proven ability to operate and trouble shoot computers and a variety of scientific equipment is essential.
- Working knowledge of typical chemicals used in a scientific working environment is also essential. Knowledge of safety procedures for equipment is required.
- Incumbent must also complete all required training modules as per Safety Office Regulations (e.g., WHMIS, Biosafety, Laboratory Safety, Employee Safety Training, and the Workplace Violence Awareness program).

Nature and Scope

- **Contacts:** Significant internal relationships include Administrative Officer, Department Chair and Associate Chairs, Department of Biology Core Instrument Committee, Biology faculty, graduate students, undergraduate students and research personnel, Departmental Technicians, Faculty, staff and graduate students across the Faculties of Science and in other units (e.g., Engineering). Significant External relationships include Suppliers/Repair IST/CHIP Office, Science Technical Services, Science Projects Team, and Plant Operations.
- **Level of Responsibility:** Must be able to work independently. Oversee the day-to-day operation of several highly specialized instruments under the jurisdiction of the Department of Biology Core Instrument Committee
- **Decision-Making Authority:** The incumbent will make recommendations on service contracts and new instruments for the Core.
- **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 will be dusty and dirty. Exposure to various chemicals. Some chemicals may cause noxious smells. Evening and weekend hours are required for potential emergencies such as malfunctions of essential equipment, freezers, power outages, etc., and the temperament of the freezer alarm system.