

BURMAN UNIVERSITY
JOB DESCRIPTION

JOB TITLE	Biology Lab Technologist
DEPARTMENT	Biology
CATEGORY	<input type="checkbox"/> Hourly <input checked="" type="checkbox"/> Salary
REMUNERATION SCALE	Individual Contributor II
REPORTS TO	Chair of Biology Department

POSITION SUMMARY

The Lab Coordinator is responsible for quality preparation of equipment, managing the materials and preparations for all biology labs, ordering or purchasing supplies, media, chemicals and equipment as well as maintaining such equipment. The coordinator supervises and trains student lab assistants on preparation of solutions and media as well as lab setup. Available to assist lab instructors on an as needed basis throughout the week. Acts as a resource for students and faculty to facilitate research and provide research support. Discusses research and equipment needs, and directs researchers to resources available in the department. Suggests methods or modifications of proposed tasks to fit within logistical constraints. Assists students as time permits, on a daily basis. Supplies, installs, and instructs researchers in the proper use of scientific instruments.

ESSENTIAL JOB FUNCTIONS

- Ensures materials and supplies are available for all laboratory classes. Advises faculty of potential supply problems related to experiments scheduled.
- Orders and stocks supplies for the laboratories. Develops an inventory control system for chemicals, glassware, and solvents.
- Maintains Material Safety Data Sheets (MSDS). Develops proper systems for chemical use and storage. Maintain safety records.
- Performs laboratory demonstrations and monitor experiment success.
- Assists with the set up and execution of final laboratory examinations.
- Maintains all laboratory equipment to assure proper operation. Repairs or arranges for the repair of instrumentation and equipment including microscopes.
- Assures laboratories and supplies are clean, sterilized when needed, and organized.
- Prepares and maintains records of experiments performed as well as a variety of other routine laboratory records.
- Maintains Biology Safety Level 2 (BSL2). Trains students and faculty to fulfill certification requirements.
- Maintains BSL@ equipment and records and arranges periodic disposal of biological waste and/or sterilization/disposal of waste (conforming with PHAC requirements).
- Provides assistance for student research projects.
- Performs periodic safety checks.
- Conducts yearly inventory of laboratory equipment.

- Arranges for and supervises the proper disposal of animal carcasses, glassware, sharps, electronics, surplus lab equipment, and chemicals.
- Directs clean up or assists in the cleanup of minor chemical (e.g. formaldehyde) or biological (e.g. *E. coli*) spills and/or glassware breaks.
- Acts as building coordinator for safety information and attends all safety meetings.
- Works with faculty or staff to correct unsafe practices after safety problems are identified.
- Maintains instruction manuals and instrument specs for all department equipment.
- Primary responsibility for ensuring quality care of all animals in the Biology Department.
- Assist faculty in development of laboratory manuals and lecture demonstrations.
- Develop and implement laboratory experiments in collaboration with faculty. Troubleshoot and identify problems with current experiments, correct and develop alternatives if appropriate.
- Be familiar with Anatomy and Physiology of the human body and teach labs.
- Understand basic histology. Be able to set up and teach Animal Physiology labs.
- Assist the Biology department in academic initiatives.
- Assist faculty with experiments for their research

JOB STANDARDS AND REQUIREMENTS

EDUCATION

- Bachelor's Degree in Biology or other scientific discipline or equivalency, Master's preferred.

EXPERIENCE

- 2 -3 years' experience in a laboratory setting.
- Familiarity with safety protocols.
- Knowledge of general biology, animal physiology, human anatomy and physiology, ecology and cell and molecular biology. Preparation of materials for molecular biology, biochemistry, microbiology & genetics labs.
- Highly developed organizational skills to keep complete, concise and clear records to organize tasks, to schedule experiment needs.
- Meeting multiple deadlines and deal with interruptions and changing priorities, good concentration skills.
- Knowledge of Laboratory safety rules and regulations, MSDS's and laboratory safety precautions, including safe handling, storage and disposal of chemicals, biological, the uses of lab safety equipment.
- Skills and knowledge setting up, maintaining and troubleshooting, lab equipment, microscopes, etc.
- Excellent interpersonal communication skills including skill to understand and carry out written and oral instructions and interact with diverse personalities and

educational levels, and with different department on campus, vendors and outside agencies.

- Combination of technical & managerial skills, as well as extensive experience in a laboratory setting.
- Supervisory skills necessary to coordinate wide range of departmental needs.

SKILLS & RESPONSIBILITY

- Basic biology lab techniques, standard lab procedures and waste management.
- Chemical measurements, calculations and preparation of chemical solution
- Excellent organizational, written and verbal communication
- Ability to trouble shoot and test new lab equipment and lab procedures
- Experience in DNA isolation, quantification, and archiving.
- Experience with PCR, qPCR, proficiency with qPCR experimental design and analysis.
- Cloning, expression, and purification of protein encoding genes by targeted PCR (experience with pGEX vectors or similar).

EFFORT & ADDITIONAL ATTRIBUTES

- Ability to exert light physical effort (up to 5kg)
- Handling: Picking, holding, or otherwise working, primarily with the whole hand.
- Visual ability: sufficient to effectively operate office equipment including copier, computer, etc.; and to read and write reports, correspondence, instructions, etc.
- Hearing ability: sufficient to hold a conversation with other individuals both in person and over a telephone; and to hear recording on transcription device.
- Speaking ability: sufficient to communicate effectively with other individuals in person and over a telephone.
- Mental Acuity: Ability to make rational decisions through sound logic and deductive processes.
- Talking: Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- Repetitive Motion: Substantial movements (motions) of the wrist, hands, and/or fingers.
- Walking: Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.
- Dedication to completing work and projects, extra hours as needed
- Dedicated and active member of the Seventh-day Adventist Church;
- Passionate about Adventist education and supporting the vision and mission of Burman University.