

Nipissing University

JOB DESCRIPTION

JOB TITLE:	Physical and Health Education Laboratory Technologist
DEPARTMENT:	School of Physical and Health Education
CLASSIFICATION:	Technologist B
WAGE GRADE:	WG 70
EMPLOYMENT DEFINITION (STATUS):	Full-Time Support Staff
SUPERVISOR:	Manager, Health and Wellness
DATE LAST REVISED:	October 2024

SUMMARY OF FUNCTIONS:

Reporting to the Manager Health and Wellness, the School of Physical and Health Education Laboratory Technologist is responsible for providing technical support, coordinating lab facilities, and maintaining inventory for all School of Physical and Health Education teaching and research laboratories. The Technologist will work closely with professors, lab instructors, students, and research assistants. The Technologist will also assist with maintaining a safe working environment in the School of Physical and Health Education labs and the science teaching classrooms/labs for the Schulich School of Education, which includes ensuring Standard Operating Procedures (SOPs) remain up-to-date and that labs and users comply with appropriate health and safety requirements. Evening and weekend work may occasionally be required.

DUTIES & RESPONSIBILITIES:

Operation of the Undergraduate and Graduate Teaching in School of Physical and Health Education (30%)

- Verify that lab equipment is functioning and is set-up as required for student lab activities
- Develop and implement an ordering system to obtain supplies in a timely manner
- Assist with design and construction of new laboratory models and apparatus
- Monitor daily operation of labs regarding cleanliness and overall condition
- Maintain accurate records regarding lab inventory, which includes equipment, supplies, chemicals, etc.
- Demonstrate to students how laboratory equipment is operated
- Order and maintain of the inventory of consumable supplies for laboratory teaching activities
- Assist in the development of lab policies and procedures and assist in ensuring compliance
- Assist in the development of general SOPs
- When requested, provide guidance to students and student employees and provide feedback on overall performance

Technical support of the science teaching labs in the Schulich School of Education (10%)

- Classify chemicals by compatibility and store them according to WHMIS regulations.
- Update MSDS sheets / database in accordance with new and discontinued chemicals.
- Arrange for proper disposal of chemical and biological waste.
- Maintain the cleanliness and organization of the laboratories.
- Assist with the ordering and maintaining of the inventory of consumable supplies for laboratory teaching activities.
- Development of lab policies and procedures and assist in ensuring compliance.
- Development of general SOPs

Technical support of research activities in the School of Physical and Health Education

(30%)

- Support faculty researchers as needed with the appropriate calibration and maintenance of all research equipment, including routine assessment of equipment accuracy and reliability and maintain appropriate records
- Support faculty researchers as needed with the ordering and maintenance of the inventory of consumable supplies for research activities
- Support faculty researchers as needed with the development and construction of new items of specialized equipment or processes for use in research
- Assist faculty researchers as needed with the testing of research participants
- Classify chemicals by compatibility and store them according to WHMIS regulations
- Update MSDS sheets / database in accordance with new and discontinued chemicals
- Arrange for proper disposal of chemical and biological waste
- Assist in maintaining the cleanliness and organization of the laboratories

Data management and software support

(20%)

- Provide technical support for laboratory hardware systems
- Assist with computer programming and provide software support for research systems
- Troubleshoot hardware and laboratory measurement devices
- Help maintain equipment and computer resources, including data storage and management.
- Provide appropriate written documentation of project development and programming code, and develop and maintain system and user documentation

Miscellaneous

(10%)

- Participate in department meetings
- Facilitate lab visits and tours
- Help maintain the inventory of physical activity equipment purchased by the School of Physical and Health Education
- Ensure safety supplies such as first-aid kits, spill kits, eye wash/ emergency showers and fire suppression equipment are accessible, maintained and replenished
- Maintain scheduling system for lab spaces

Other duties as assigned by supervisor.

QUALIFICATIONS:

Education: 3-year post-secondary diploma in one of the following areas: kinesiology; electrical or computer systems technology; or a biological sciences related field.

Training and/or experience may be substituted for formal academic training at the discretion of the University

Training, Experience, Knowledge & Skills Required:

- Two or more years of related experience
- Analytical and problem-solving skills
- Ability to learn new computer software quickly and to troubleshoot computer-related issues
- Strong knowledge of electronic systems and ability to construct circuitry in support of research hardware

- Ability to pay close attention to details
- Ability to communicate clearly, both orally and in writing
- Self-motivation and organizational skills
- Ability to work independently and as part of a team
- Knowledge of safe working practices and Joint Health and Safety Committee guidelines
- Knowledge of legislation and regulations pertaining to general laboratory safety and disposal of hazardous goods
- Good interpersonal skills required to relate to students and the external public.
- WHMIS, first aid CPR/AED level C training (an asset)
- Experience with data acquisition systems (e.g. LabChart for ECG, EMG, skin temperature, etc.)
- Familiarity with maintenance of treadmills and bicycle ergometers
- Familiarity with heating and air conditioning equipment used in an environmental chamber
- Knowledge of blood sampling and storage equipment (e.g. point-of-care testing, autoclave, biological safety cabinet, ultra-low freezer)
- Knowledge of motion capture systems (e.g. Qualisys Track Manager, Motive, Visual3D)
- Knowledge of force measurement systems (e.g. force plates, load cells)
- Soldering equipment as well as circuit design software such as Eagle CAD would be an asset
- Software such as Matlab, LabView, SPSS, LabChart, Visual 3D, OpenSim, Google MediaPipe would be an asset

QUALIFICATIONS:

Supervised by: Manager, Health and Wellness with additional day-to-day direction from the Director, School of Physical and Health Education and the Associate Dean, Schulich School of Education

Internal Contacts: Faculty, Staff, and Students

External Contacts:

- Faculty from other universities: exchanging information
- Technical support personnel from hardware/software companies
- Public: providing occasional tours or information

MATERIALS UTILIZED:

- Metabolic carts
- Data acquisition systems (e.g. LabChart for ECG, EMG, skin temperature, etc.)
- Treadmills and bicycle ergometers
- Heating and air conditioning equipment used in an environmental chamber
- Blood sampling and storage equipment (e.g. point-of-care testing, autoclave, biological safety cabinet, ultra-low freezer)
- Motion capture systems (e.g., Qualisys, Optotrak, Motive)
- Force measurement systems (e.g. force plates, load cells)
- Eye movement recording systems
- Computers (Windows and Mac), audio/visual equipment, telephone
- Software such as Matlab, LabView, SPSS, Visual 3D,, Google MediaPipe, OpenSim

PHYSICAL/MENTAL DEMANDS & WORKING CONDITIONS

- Some lifting may be required periodically as situations arise
- Standing, sitting, walking

- Intense visual and mental concentration and manual dexterity
- Occasionally exposed to hazardous waste chemicals when sorting wastes as well as potential hazards such as sharps, blades, syringes, equipment, and compounds
- Quiet working area
- Evening and weekend work may occasionally be required

I have read my position description and it has been reviewed with my supervisor. I understand what my duties and functions are, and I will carry out all of my responsibilities as herein described.

Employee Name (please print)

Employee Signature

Date

Approvals

Supervisor

Date

Human Resources

