**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Demonstrator/Technician

**Job Number:** SS-077

**NOC:** 4012

**Band:** 8

**Department:** School of the Environment

**Supervisor Title:** Director, School of the Environment

**Last Reviewed:** August 2017

**Job Purpose**In co-operation with faculty, and under general supervision of the Director, assist in the delivery of academic services in the School of Environment, by demonstrating, instructing in laboratories, field laboratories, classrooms and seminars. Preparing teaching materials (e.g. manuals, assignments), supervising and coordinating Teaching Assistants, marking undergraduate student work, maintaining class records and tutoring students individually. Ensuring that health and safety requirements are being met in laboratories; assist in the management of the School of the Environment (TSE) laboratories and provide technical support for teaching facilities used by faculty, undergraduates, graduates and research assistants. Purchase laboratory supplies and equipment.

**Key Activities**

1. In co-operation with other instructors, teaches, demonstrates, and supervises undergraduate student classes in laboratory, field (aquatic and terrestrial), and computer settings in the TSE.
2. In co-operation with other instructors, teaches safety awareness and procedures and monitors student safety in laboratory and field classes.
3. Organizes and supervises Teaching Assistants with respect to laboratory instruction, explaining the objectives of the laboratory components of the course and background information.
4. Works with course instructor to instruct and supervise student teaching assistants (GTA, AA). Allocates marking and keeps records of assignments. Keeps records of hours worked by student teaching assistants.
5. In co-operation with other instructors, organizes, researches, designs and prepares laboratory manuals, handouts, assignments and electronic instructional materials.
6. Evaluates undergraduate students as required on the basis of written work, laboratory reports, tests, essays, exams, and oral presentations.
7. Invigilates tests and exams.
8. Provides one-on-one instruction of undergraduate students who need assistance with course-related material, assignments, and computer-related problems.
9. Manages the laboratory section of the blackboard for the School undergraduate course as designated by the Director. Tasks include managing grades, laboratory assignments and quizzes, announcements, course content, monitoring any discussion forums.
10. Assists graduate students and research assistants in equipment use, troubleshooting and choice of methodology.
11. Prepares analytical and sampling equipment and supplies for field- and lab-based classes.
12. Troubleshoots departmental instrument problems and liaises with instrument manufacturers to develop solutions. Liaises with instrument manufacturer technicians during the installation and repair of departmental instrumentation.
13. Works with other staff members to maintain and keeps inventories of departmental equipment and supplies including chemical inventory.
14. Maintains and keeps an inventory of equipment (including AV) and teaching reference material to be loaned to undergraduates, graduates and faculty.
15. Available to undergraduate students for consultation regarding course related material .
16. Participates in any internal or external committees as mutually agreed upon with the Director of the School.
17. With the agreement of the Chair obtains/maintains training to facilitate job expectations (e.g. WHMIS, First Aid, Radiation Safety, Transport of Dangerous Goods, Driver’s License, etc.)

**Education**

Master of Science Degree.

**Experience Required**

1. Two years directly related experience.
2. Thorough working knowledge of the discipline of Environmental and Resource Science.
3. Basic knowledge of Geography, chemistry and biology. Ability to make solutions and run biological assay tests.
4. Demonstrated ability to work independently with minimal supervision.
5. Excellent interpersonal and communications skills (both oral and written).
6. Knowledge of computer operating systems, word processing, spreadsheet, and Internet applications.
7. Knowledge of procedures for obtaining information as needed through library, Internet, and personal contact sources.

**Responsibility for the Work of Others**

Direct Responsibility

Teaching Assistants. Authority for direct responsibility is delegated by the course coordinator.

Indirect Responsibility

Teaching Assistants

**Communication**

Internal:

* Students: Teach and explain course material and evaluations.
* Demonstrators (within and outside department): Develop course material.
* Technicians: Troubleshoot, repair, and replace equipment. Discuss and arrange equipment sharing.
* Staff, Faculty, and other Instructors: Answer queries about course content, Trent policy, and technical issues.
* Faculty: Provide Department administration and service.
* Teaching Assistants: Explain assignments and troubleshoot problem situations.
* Graduate students and research assistants: instruction on equipment usage and administration.
* Physical Resources: Identify, clarify, and arrange repairs and new projects.

External:

* Retailers and Manufacturers: Gather information about and order equipment; troubleshoot technical and equipment problems.
* Technical Staff from equipment and instrumentation suppliers.

**Motor/ Sensory Skills**

* Fine motor skills - manipulating equipment and measuring devices, data entry via keyboard and mouse
* Dexterity - precision in manipulating equipment and measuring devices
* Gross Motor Skills - moving analytical and sampling equipment, boats, and motors
* Hearing - responding to student and instructor queries
* Sight - reading reports and student assignments, precision in manipulating equipment and measuring devices
* Touch - precision in manipulating equipment and measuring devices

**Effort**

Mental:

* Sustained concentration - marking assignments, creating new hard copy and electronic educational materials, reading new material, analyzing problems, troubleshooting computer problems, working with equipment

Physical:

* Standing, Walking - teaching and demonstrating laboratory and field classes
* Lifting - moving equipment and rearranging laboratories and classrooms

**Working Conditions**

Physical:

* Injury - Operation of dangerous analytical and sampling equipment, exposure to dangerous materials, conducting field laboratories in an unpredictable outdoor environment
* Monotony - Data entry, sorting of student assignments
* Discomfort - Poor lighting and noise conditions

Psychological:

* Complaints - From instructors and students about timetable, marks
* Frequent coinciding deadlines - Many major tasks due simultaneously.
* Multiple competing demands - At any one time, many different active tasks (e.g., between different courses)
* No control over work pace - Deadlines and nature of work results in unavoidable busy periods
* Handling of student appeals - Angry students displeased with grades
* Interruptions - Emergency support and last minute changes interrupt planned activities and schedules