**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Senior Demonstrator/Technician

**Job Number:** SS-009

**NOC:** 4012

**Band:** 10

**Department:** Trent School of the Environment

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

**Last Reviewed:** January 2, 2001

**Job Purpose**

Assist in the delivery of academic services by instructing in laboratories, preparing teaching manuals, assignments, and handouts, supervising and coordinating Teaching Assistants, marking undergraduate assignments, tutoring undergraduate students individually, providing technical support for teaching facilities.

**Key Activities**

1. In co-operation with faculty and under general supervision of the Director, organizes, researches, designs, prepares, demonstrates, instructs and supervises upper level undergraduate students in laboratory, field, and computer courses.
2. Assists senior undergraduate and graduate students in design, construction and installation of equipment as needed in field research for thesis.
3. Designs and prepares lab manuals, handouts and assignments.
4. Acts as a computer resource person; specifically focusing on how computers can be used in teaching and how to implement this technology in classroom situations. Works with Science computer technician and Computing Services personnel regarding computer facilities and participates in discussions regarding computer resources for students.
5. Advises students on curriculum and course choices.
6. Advises transfer, Trent International Program and new students on timetable scheduling.
7. Evaluates students on the basis of written work, lab reports, tests, essays, exams and oral presentations. Invigilates tests and exams.
8. Is available for one-on-one instruction of undergraduates who need assistance with course-related material, assignments and computer-related problems.
9. Is responsible for the day-to-day maintenance and operation of the Trent Climate Station. This includes maintenance of department equipment and disseminating climatic variables to faculty, staff and students for teaching and research purposes. Also includes providing climate information to other institutions and the general public in specific instances of unusual or severe weather/climate.
10. Assists in and collaborates with faculty in planning and execution of research programs. Performs research including data collection, analysis and publication of results.
11. When necessary, instructs/assists faculty and graduate students in logistics of research projects and in the use of various field and analytical equipment.
12. Conducts organization meetings for Demonstrators and Teaching Assistants.
13. Organizes and supervises Teaching Assistants with respect to organizing laboratory instruction, objectives of the lab components of the course and background information.
14. Oversees implementation of Health and Safety regulations in laboratory courses with respect to WHMIS, CNSC, and Hazardous waste.
15. In conjunction with the Director or designate, coordinate timetable of Department teaching times and locations. Interact with University timetable coordinator and solve timetable issues associated with room allocations, teaching schedules.
16. Maintains and repairs all departmental field and analytical equipment.
17. Responsible for department equipment bookings, policy, and billings (including vans and boats)
18. Maintains and keeps inventories of departmental equipment and supplies including chemical inventory. Maintains and keeps an inventory of equipment and teaching reference material to be loaned to undergraduates, graduates and faculty.
19. Maintains the Program's equipment, supplies and laboratory teaching budgets as well as the budgets for special projects.
20. Prepares solutions, supplies, field and analytical equipment, and computer equipment for undergraduate courses.
21. Investigates and purchases laboratory supplies and departmental scientific equipment based on need.
22. Acts as buyer for the department and approves all orders below $1500.00. Handles all monetary transactions for the department and any related correspondence. Manages departmental budgets and financial statements.
23. Liaises with technicians and demonstrators of other departments regarding joint projects, joint course and sharable equipment.
24. Liaises with Facilities Management regarding physical plant requirements/changes/repairs.
25. Serve on committees that hire faculty staff and students and acts as a reference. Serves on program committee.
26. Participates in any internal or external committees as mutually agreed upon with the Director.
27. Prepares reports and proposals for fundraising campaigns, program projects, Academic Innovation Fund, and joint departmental projects.
28. Proactively organizes, makes decisions on eligibility, maintains records, and in co-operation with the Director, presents policy to the Program regarding registration qualifications and procedures for undergraduates in the Program.
29. Liaises with the Registrar's Office regarding registration of students and participates as science representative on early registration policies and procedures for the university.
30. Works with Director with regard to recruitment, coordinating and leading science tours, and on-going contact with high schools.

**Education**

Master’s Degree in Physical Geography or related discipline.

**Experience Required**

Over one year and up to two years.

**Responsibility for the Work of Others**

Direct Responsibility

* Demonstrators
* Teaching Assistants

**Communication**

Internal:

* Students: teaching, assignment and report critique
* Technicians: equipment repair and replacement
* Finance Department: Purchasing
* Technicians from other departments to discuss sharing of equipment
* Staff and Faculty: answer queries
* Faculty: department business
* Teaching Assistants: explanation of assignments
* Computer Technicians: Hardware/software problems
* Office of the Dean: Marking contracts
* Physical Resources – repairs, new projects.

External:

* Suppliers: gather information and order equipment
* Technical Staff from other Universities
* Trent Community: act as a resource
* High School teachers: act as a resource
* Science Fair Board: act as a resource
* Primary School teachers: project assistance, lectures, demonstrations.
* Parents and prospective students: act as a resource in recruitment efforts

**Motor/ Sensory Skills**

* Fine Motor Skills - manipulating equipment and measuring devices, keyboarding and data entry
* Dexterity - precision in manipulating equipment and measuring devices
* Gross Motor Skills - Moving field equipment
* Hearing - responding to student and faculty queries
* Sight - reading reports, precision in manipulating equipment and measuring devices
* Touch - precision in manipulating equipment and measuring devices

**Effort**

Mental:

* Sustained concentration - marking assignments, reading new material, analyzing problems, debugging software and working with equipment

Physical:

* Standing, Walking - administering labs
* Lifting - Moving equipment and rearranging labs/classrooms.
* Skiing - Research on glaciers in high arctic

**Working Conditions**

Physical:

* Injury - Operation of dangerous equipment
* Monotony - data entry
* Injury - Exposure to dangerous materials
* Noise - Poor lighting and noise conditions
* Exposure - Exposure to extreme weather conditions in the field.
* Isolation - Isolation in the field

Psychological:

* Complaints - Complaints from faculty and students
* Conflicting work priorities and deadlines – labs, manuals, assignments.
* Handling of student appeals - Angry students upset with grades
* Lack of control over pace of work - academic term “end rush”
* Multiple competing demands - instructing in several courses.
* Isolation - Isolation in the field