**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Demonstrator

**Job Number:** SS-065

**NOC:** 4012

**Band:** 8

**Department:** Forensic Science

**Supervisor Title:** Chair, Forensic Science

**Last Reviewed:** December 15, 2015

**Job Purpose**

Under the general supervision of the Department Chair, provides educational support to the Department and DNA Building infrastructure support.

**Key Activities**

1. Prepares, provides primary technical support and demonstrates in practical sessions in assigned Forensics courses offered in Forensics labs or the Forensics Crime Scene House or in the field. Regular lab instruction of complex concepts and techniques are required.
2. Prepares solutions, supplies, analytical equipment and computer equipment for designated undergraduate courses. In conjunction with the course instructor, designs and writes laboratory protocols, procedures, assignments and rubrics.
3. Responsible for groups of students in the laboratory and Crime Scene House. Oversees implementation of Health and Safety regulations in designated laboratory and field courses.
4. Co-ordinates and works with the course instructor to train and supervise student teaching assistants (GTAs and AAs). Assigns marking to TAs and tracks and records marks in assigned courses.
5. Responds to student email correspondence. Meets with students and provide one-on-one instruction as needed.
6. Evaluates lab reports, assignments and oral presentations in assigned Forensic Science courses. Invigilates undergraduate exams.
7. Responsible for ordering and maintaining stocks of teaching supplies and teaching lab equipment for Forensics. Maintains an inventory of supplies, chemicals and equipment for Forensics courses. Maintains a billing and inventory system for use in conjunction with equipment loans and outside activities.
8. Manages the science equipment fund budget as well as the departmental laboratory budget as assigned by the Chair.
9. Assists with web-based content and computer technology for Forensic Science courses in consultation with faculty. Manages the lab section of the BlackBoard website for Forensic Science undergraduate courses as designated by the Chair. Tasks include managing gradebook, lab assignments and quizzes, announcements and course content.
10. Helps ensure lab safety regulations are observed and teaching lab equipment is in safe working order. Works with other staff members to ensure upkeep, repair and organization of Forensic Science equipment and facilities (e.g. Crime Scene House, microscopes, cameras, pipettes, thermal cycler etc.)
11. Develops operating and safety instructions for new instrumentation for use in lab manuals.
12. Liaises with the Trent community on science camps and fairs and promotion of Trent University through activities such as laboratory tours and demonstrations. Organizes and supervises student volunteers.
13. In collaboration with other staff, hires, trains, supervises and evaluates placement and external co-op students.
14. Deals with departmental scientific waste disposal (e.g. chemical waste, biohazardous waste, biological waste). Works with the Science Facilities department, Biosafety Officer and suppliers to develop handling, disposal, spill and emergency protocols for new laboratory chemicals. Keeps and maintains record sheets of controlled substances (ex. Ethanol).
15. Functions as a Fire Warden in a designated area of the DNA Building.
16. Participates in any internal or external committee as agreed upon with the departmental Chair.

**Education**

Honours University Degree (4 year) in Science (B.Sc.) or Forensic Science (B.Sc.FS). An MSc is preferred and will be considered an asset.

**Experience Required**

1. Minimum of two years’ laboratory experience, with preference given to those individuals with experience using the Forensic techniques utilized in the laboratories to be set up.
2. Valid Ontario Driver’s License (Class G) required.
3. Valid First Aid Certificate desirable.
4. Excellent computer skills: demonstrated proficiency with Microsoft, Word and Excel, Access Database; email and Internet applications essential.
5. Excellent organizational and problem solving skills.
6. Excellent interpersonal skills.
7. Excellent oral and written communication skills.
8. Proven ability to work both independently and as part of a team.
9. Demonstrated initiative.

**Responsibility for the Work of Others**

*Indicate whether the incumbent is directly or indirectly responsible for the work of others. Provide the title of the position(s) as well as an example of how the incumbent is responsible for the work of others on a daily basis. Specifically, indicate whether the position has responsibility for hiring and supervision of student workers.*

Direct Responsibility

Graduate Teaching Assistants and Academic Assistants (authority for direct responsibility is delegated by the course instructor), Co-op students, Placement Students.

Indirect Responsibility

Assists the Chair in training other demonstrators in the department including their awareness of and adherence to departmental and university practices and policies.

**Communication**

*Indicate the title(s) of individuals internal and external to the University that the incumbent communicates with on a regular basis. Provide a brief description of the purpose for communicating with these individuals.*

Internal

* Students: explain complex concepts, demonstrate the operation of an instrument or laboratory technique
* Staff and Faculty: answer queries, departmental business
* Faculty: discuss/educate on time/space/budget/logistical limitations of lab exercises, discuss changes to laboratory exercises, either technical or logistical
* Teaching Assistants: explanation of activities, set up, assignments, troubleshoot problem situations; allocation of grading responsibilities
* Computer Technicians: Hardware/software problems
* Technicians from other departments to discuss sharing of space/equipment
* Science Facilities: chemical/biohazard handling, storage and disposal, protocol development
* Purchasing: answer queries
* FixIt: Maintain facilities, secure services
* Recruitment: Organize tours and outreach activities

External

* Suppliers/manufacturers: gather information, determine price and availability of supplies/equipment, troubleshoot issues and secure supplies/repairs/returns
* Technical Staff from other companies/institutions: research products & techniques
* Trent Community: act as a resource
* High School teachers: act as a resource, develop and plan activities, lectures, demonstrations
* Parents and prospective students: act as a resource in recruitment efforts

**Motor/ Sensory Skills**

*Indicate the level of proficiency or precision in motor or sensory skills required by the job. Examples include but are not limited to: small/large movement to operate machinery; coordinated movement; equilibrium to maintain balance; dexterity to grasp, move, assemble objects or operate equipment; hearing, sight, touch, smell, taste. Provide a brief description of tasks performed that require motor/sensory skills.*

* Fine Motor Skills - manipulating equipment and measuring devices, accurately preparing solutions and chemicals, keyboarding and data entry
* Dexterity - precision in manipulating equipment and measuring devices, labelling and manipulation of small vials; demonstrate difficult techniques
* Hearing - responding to student and faculty queries, detecting changes in sounds of operating equipment to prevent accidents/injuries, grading students’ oral presentations
* Sight – reading/grading reports and assignments, precision in manipulating equipment and measuring devices, visual acuity for grading photography/evidence development assignments, ability to operate a vehicle for transportation to field locations
* Touch - precision in manipulating equipment and measuring devices

**Effort**

*Indicate the physical and/or mental demands of the position in the ordinary course of performing the role. Examples include but are not limited to: lifting, moving, carrying, pushing/pulling, reaching, kneeling, remaining motionless, sustained concentration or focus. Provide a brief description of the tasks performed that are physically and/or mentally demanding.*

Mental

* Sustained concentration - reading new material, creating new teaching materials, troubleshooting analytical results and equipment issues, analyzing student data and results, inputting data into spreadsheets, using software and working with analytical equipment

Physical

* Standing, Walking - administering labs
* Lifting - Moving equipment and rearranging labs/classrooms. Receiving shipments.

**Working Conditions**

*Indicate any physical and psychological conditions of the position that make the job unpleasant, disagreeable and/or hazardous to health and well-being. Describe the nature, frequency and duration of exposure.*

Physical

* Injury - Operation of dangerous equipment, exposure to dangerous materials
* Repetitive strain - data entry, prolonged standing during lab prep and delivery
* Poor lighting, temperature and noise conditions

Psychological

* Complaints - Complaints from faculty and students
* Conflicting work priorities and deadlines - labs, manuals, assignments
* Frequent coinciding deadlines - Many major tasks due simultaneously.
* Multiple competing demands - At any one time, many different active tasks (e.g. between different courses, ordering, recruitment)
* Angry students upset with grades - Handling of student appeals
* Interruptions - Interruptions from students, staff and faculty
* Lack of control over pace of work - Deadlines and nature of work results in unavoidable busy periods
* Variable work schedule