**Department of Human Resources**

**OPSEU Job Description**

**Job Title:** Demonstrator(Scheduling and Budgeting)

**Job Number:** SS-065

**NOC:** 4012

**Band:** 8

**Department:** Forensic Science

**Supervisor Title:** Chair, Forensic Science

**Last Reviewed:** March 2, 2022

**Job Purpose**

In co-operation with faculty and under the general supervision of the Department Chair, provides educational support to the Forensic Science Department (with a primary focus on undergraduate courses) by instructing in laboratories; preparing teaching materials (e.g., manuals and assignments), supervising and coordinating Teaching Assistants, evaluating student work, ensuring that health and safety requirements are being met in laboratories, assisting in the upkeep of the Forensic Science Department laboratories and teaching facilities, and providing technical support for the use of analytical and computer technologies.

**Key Activities**

Student/Course/Departmental Support

1. Prepares and provides primary technical support and demonstrates in practical sessions in assigned Forensic Science courses offered in Forensic Science laboratories or the Forensic Crime Scene Training Facility (FCSF) or in the field. Regular laboratory instruction of complex concepts and techniques are required at the upper year undergraduate level or graduate level.
2. In conjunction with the course instructor, designs and writes laboratory protocols, procedures, assignments, and rubrics. Develops operating and safety instructions for new instrumentation for use in laboratory manuals.
3. Co-ordinates and works with the course instructor to train and supervise teaching assistants (TAs) when teaching undergraduate or graduate courses. Organizes work schedules, assigns marking and other tasks to TAs, monitors work progress and troubleshoots problems as they arise.
4. Evaluates laboratory reports, assignments, and oral presentations in assigned Forensic Science courses.
5. Invigilates undergraduate and graduate exams.
6. Responds to student email correspondence. Provides one-on-one instruction to students who need assistance with course related material, assignments, and computer-related problems.
7. Manages the laboratory section of the BlackBoard website for Forensic Science courses as designated by the Department Chair. Tasks include managing grades, laboratory assignments and laboratory quizzes, announcements, laboratory course content, and monitoring the discussion forum.
8. Prepares solutions, supplies, analytical equipment, and computer hardware and software for designated undergraduate and graduate courses.
9. Arranges lab access by assigning departmental keys or permitting key card access
10. Work with graduate students and researchers to arrange lab access over the summer.

Health and Safety

1. In co-operation with other instructors, teaches health and safety awareness and procedures to teaching assistants and students and monitors student safety in laboratory and field classes.
2. Oversees implementation of Health and Safety regulations in designated laboratory and field courses with respect to WHMIS and Hazardous waste. Deals with course 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 for assigned courses. Keeps and maintains record sheets of controlled substances (e.g., Ethanol).
3. Helps ensure laboratory safety regulations are observed, and teaching laboratory equipment is in safe working order.
4. In co-operation with Science Facilities, Develops safety procedures for new spaces
5. Work with students to accommodate medical and physical conditions to allow for safe completion of lab exercises
6. Work with Risk Management, Science Facilities and The Office of Research and Innovation to develop lab material to safely and ethically work with student biological and biometric material
7. Functions as a Fire Warden in a designated area of the DNA Building.

Laboratory Purchasing and Budgeting

1. Responsible for researching, ordering, and maintaining stocks of teaching supplies and teaching laboratory equipment for assigned courses.
2. Assists in maintaining the undergraduate departmental laboratory budget, and applicable special project budgets, including the departmental allocation of the Science Equipment Fund.
3. Prepares reports and proposals for funding applications, fundraising campaigns, and program projects.

Laboratory Equipment and Inventory

1. Establishes and maintains a departmental inventory of laboratory supplies, chemicals, and equipment.
2. Maintains an inventory system for use in conjunction with laboratory equipment loans and outside activities.
3. Helps to manage all billable services incurred by researchers, outside groups, faculty and students using laboratory equipment.
4. Works with other staff members to ensure upkeep, repair and organization of Forensic Science laboratory and computer equipment and facilities.
5. Instructs faculty, researchers, and graduate students how to use departmental equipment.

Lab Scheduling

1. Coordinates booking of Forensic Science Department teaching labs.
2. Liaises with other departments with respect to scheduling shared labs and labs in cross-listed courses.
3. Consults with other academic units to ensure capacity requirements are met in lab-based courses offered by other departments required by Forensic Science students
4. Liaises with FRSC scheduling committee/leads to coordinate all lab scheduling, estimating number of lab sections required for each course and number of “ghost” sections to create to avoid scheduling conflicts if enrollments are higher than anticipated.
5. Troubleshoots enrolment, conflict and capacity issues

Infrastructure Support

1. Supports Forensic Science Department laboratory infrastructure including liaising with Project Managers, Contractors, facilities maintenance, health and safety department, and science facilities
2. Participate in the design of new laboratory facilities or renovation requirements, including developing material to support infrastructure requests
3. Works with other university members to secure repairs and upgrades to existing Forensic Science laboratory spaces

Miscellaneous

1. Attends Outreach Events as assigned by the Department Chair.
2. Work with communications department to develop advertising material and departmental logos
3. Work with external agencies to arrange for departmental advertising (ex CSFS conference)
4. Maintain up-to-date skill set by liaising with industry partners and attending training and educational events
5. Participates in any internal or external committee as agreed upon with the departmental Chair.

**Education**

Master of Science Degree in Forensic Science, Biology, Chemistry or related discipline.

**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. Detailed working knowledge of Forensic Science, Biology, and/or Chemistry.
3. Valid Ontario Driver’s License (Class G) required.
4. Valid First Aid Certificate desirable.
5. Excellent computer skills: demonstrated proficiency with Microsoft Office Suite; E-mail and Internet applications essential.
6. Excellent organizational and problem-solving skills.
7. Excellent interpersonal skills.
8. Excellent oral and written communication skills.
9. Proven ability to work both independently and as part of a team.
10. Demonstrated initiative.

**Responsibility for the Work of Others**

Direct Responsibility

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

Indirect Responsibility

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

**Communication**

Internal

* Students: explain complex concepts, demonstrate the operation of an instrument or laboratory technique, explain course material and evaluations
* Staff, Faculty, and other Instructors: Answer queries about course content, Trent policy, and technical issues.
* Faculty: discuss/educate on time/space/budget/logistical limitations of laboratory exercises, discuss changes to laboratory exercises, either technical or logistical for assigned Forensic Science courses
* Teaching Assistants: explanation of activities, set up, assignments, troubleshoot problem situations; allocation of grading responsibilities
* Computer Technicians: Troubleshoot and repair hardware/software problems
* Demonstrators (within and outside department): Develop course material, arrange space and equipment use.
* Science Facilities: chemical/biohazard handling, storage and disposal, protocol development
* Physical Resources: Maintain facilities, secure services for assigned courses
* Registrar’s Office: Develop lab schedule, Troubleshoot Lb capacity and conflict issues
* Administrators and Coordinators from other departments: Secure lab section capacity for Forensic Science students in required courses in other departments
* Risk Management and The Office of Research and Innovation: Develop lab activities involving student biological and biometric data

External

* Suppliers/manufacturers: gather information, determine price and availability of supplies/equipment, troubleshoot issues and secure supplies/repairs/returns for assigned courses
* Technical Staff from other companies/institutions: research products & techniques, troubleshoot technical and equipment problems
* Trent Community: act as a resource
* Community Partners: act as a resource to policing and forensic agencies, advise of lab capabilities for collaborations
* Parents and prospective students: act as a resource in recruitment efforts

**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**

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**

Physical

* Injury – Operation of dangerous equipment, exposure to dangerous materials, conducting field laboratories in unpredictable weather
* Repetitive strain – data entry, prolonged standing during laboratory prep and delivery, prolonged sitting and working at a computer
* Discomfort – Poor lighting, temperature, and noise conditions

Psychological

* Complaints – Complaints from faculty, instructors 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)
* Handling of student appeals – Angry students upset with grades
* 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 – Lab coverage required from 8am to 10pm, set up may need to be done between those times