#### Trent University LogoOPSEU JOB DESCRIPTION

**Job Title:** Demonstrator

**Job Number:** SS-084 | VIP: 1757

**Band:** OPSEU- 8

**Department:** Mathematics

**Supervisor Title:** Chair, Mathematics

**Last Reviewed:**  August 3, 2022

#### **Job Purpose:**

In co-operation with faculty, and under general supervision of the Chair, assist in the delivery of academic services in the department of Mathematics by coordinating workshop/lab offerings; instructing in workshops and labs; preparing teaching material; instructing, supervising and coordinating Teaching Assistants; marking undergraduate assignments; tutoring undergraduate students; and providing technical support for teaching facilities; assisting in the upkeep of computers, software and facilities.

#### Key Activities:

##### Seminars, Labs & Workshops; Material Preparation

* Contribute to the design and refinement of seminar, laboratory and workshop content, structure, and evaluations; prepare instructions, handouts and assignments as directed.
* In co-operation with faculty/instructors, design, organize, prepare, and deliver instruction (seminars/labs/workshops) to first- and second-year undergraduate students. This includes instruction of complex concepts and problem-solving skills in a formal classroom setting.
* Prepare tests and examinations under supervision of faculty/instructors.

##### Training & Coordination

* Train, coordinate, and supervise teaching assistants assigned to the courses. Weekly organization and supervision of Teaching Assistants with respect to laboratory/seminar/workshop instruction, objectives of the lab/seminar components of the course and background information.
* Attend, as necessary, lectures and other instructional activities to assist in quality improvements for courses.
* Attend and contribute to meetings of course instructors to discuss issues affecting student learning, testing and other classroom issues.
* Coordinate course activities including the maintenance of course information on the Blackboard Course web sites or equivalent sites.
* Coordinate invigilation of examinations.
* Liaise with Student Accessibility Services.
* Invigilate tests and examinations.
* Maintain the computers in the Math Resource Centre and ensure all software is up to date.
* Manage and administer Bloomberg Terminal signups and use.
* Maintain training materials for the Bloomberg lab.
* Assist with intake of new users to the lab.

##### Grading & Coordination

* Assist faculty/instructors in coordinating, training, and supervising marker/graders for written assignments.
* Evaluate students on the basis of written work, quizzes, and tests (under supervision of faculty/instructors).
* Record, manage, and assign grades in consultation with course faculty/instructors; maintain database of student marks, including final marks in courses.

##### Student Contact outside of Seminar/Lab/Workshop

* Meet with students individually to:
  + provide remedial help.
  + provide guidance in preparation for exams and lab assignments.
  + provide feedback on performance and suggestions for improvement.
  + help interpret results from course materials.
* Communicate with students using email.
* Maintain regular office hours and be available for student appointments outside those hours.

#### Education Required:

* Honours Bachelor’s Degree (4 years) in Mathematics.
* Master’s Degree in STEM areas preferred.

#### Experience/Qualifications Required:

* Complete knowledge of introductory (first- and second-year level) mathematics: calculus, linear algebra, probability, discrete mathematics, and differential equations.
* Experience using Maple, Sage or equivalent mathematical software platforms.
* Familiarity with the Blackboard LMS.
* Excellent interpersonal and communication skills.
* Excellent presentation skills with experience in facilitating small- and large-group settings.
* Superior time management skills.

#### Supervision:

* Supervise and direct the activities of student employees.

**Job Evaluation Factors:**

##### Communication

Internal:

* Students: teaching, assignment and report critique
* Staff, Graduate Students and Faculty: answer queries
* Faculty: department business
* Teaching Assistants: training for seminar delivery, explanation of assignments
* Computer Technicians: Hardware/software problems

External:

* Suppliers: acquire teaching resources
* Trent Community: act as a resource
* Parents and prospective students: act as a resource in recruitment efforts

##### Effort

Mental:

* Sustained concentration – creating assignments, creating/revising seminar materials, marking assignments, reading new material, analyzing problems, and debugging software

Physical

* Standing, Walking - administering seminars
* Lifting - Moving large boxes and rearranging labs/classrooms.

##### Working Conditions

Psychological:

* Complaints - Complaints from faculty and students
* Conflicting work - seminars, seminar material, assignments, exams, seminar leader management, priorities and deadlines
* Handling of student appeals - Angry students upset with grades
* Lack of control over pace of work - academic term “end rush”
* Multiple competing demands – managing and supporting more than 1000 students per semester across multiple courses; training and supervising seminar leaders; delivering seminars; creation of tests and exams; coordination of invigilation support; etc.
* Interruptions - Interruptions from students and faculty during tasks
* Some evening work required