University of Toronto
BIOCHEMISTRY PROGRAM
Job Posting – Teaching Assistant Position
Winter 2024 (January – April)

Posted on: August 11, 2023

The Biochemistry Program seeks up to 1 Teaching Assistants for the following course:

**BCH 340H – Proteins: From Structure to Proteomics**

Proteins are the main functional units of the cell. In this course, a detailed overview of protein structure and function will be given with strong emphasis on the basic principles in the field. Students will be introduced to folded and intrinsically disordered proteins. Biophysical methods to study protein stability and folding will be discussed, as well as experimental approaches to determine protein structure and function. Students will be introduced to catalysis, kinetics, and the mechanisms that regulate enzyme activity. Finally, proteomic methods to studying protein networks in cells will be presented. The course will offer a solid basis in protein biochemistry. It is recommended for those interested in pursuing graduate studies or professional degrees in health or medicine.

Students will learn fundamental principles about protein structure and function, as well as techniques that are used to study proteins *in vitro* and in cells. By integrating these concepts, students will conceptualize proteins as dynamic, three-dimensional molecules that specifically bind ligands to execute one or more critical roles in the cell. Students will apply this knowledge to critically analyze and discuss scientific literature, answer problem-based questions, and explain why abnormal protein structure and function can disrupt cellular homeostasis.

**Qualifications**

**Minimum Qualifications:**
1. Intermediate to advanced understanding of protein biochemistry, including structural biology.
2. Solid understanding of molecular and cellular biology.
3. Effective time-management and problem-solving skills.
4. Well-developed communication skills.

**Preferred Qualifications:**
Previous experience with grading assignments and exams and moderating tutorials in a biochemistry undergraduate course.

** Relevant Criterion**
Previous experience is the more relevant criterion than the need to acquire experience in respect of this posted position.

**Duties (feel free to revise if needed)**
The course is divided into two sections, each taught by a different professor. There are 2 Teaching Assistants. There is no mid-term or final examination. Instead, each section consists of the following:

1. **Problem-solving assignment.** Each section of the course will involve a 15% assignment to assess your understanding of the material, your ability to connect multiple concepts from across the course, and your ability to apply this knowledge to real-world scientific problems.

2. **Journal club.** Each section of the course will involve a 10% assignment based on a journal article chosen by the instructor. Students will be required to read the journal article and submit the problem-based assignment before participating in the classroom discussion.
   a) Problem-based assignment (7%).
   b) Attendance and participation in class-based discussion (3%).
3. **Exam.** Each section of the course will have 1 written exam, each worth 15%. The exams are scheduled to take place from 1:10 PM to 2:00 PM (exactly) on the assigned calendar date. You will have up to 50 minutes to complete the quiz. Additional details will be provided in class.

4. **Tutorials.** Each section of the course will have 2 in-class discussion sessions to help keep you on track. You are expected to attend the discussions and participate by asking constructive questions about the course material.

The Teaching Assistants will be responsible for grading assignments and exams and moderating in-person discussions centred around journal articles and tutorials. To this end, they will need to familiarize themselves with the course content, journal articles, and journal article assignments.

*Duties of this position shall be performed at the campus on which the position is located.*

**Hours of work:** approx. 70 hours per TA (average of 10 hours per week)

**Estimated Course Enrolment:** 60 students

**Rate of Pay:** UG/SGS I/II - $47.64/hour (+ vacation pay)

**Start date of the appointment:** January 8, 2024

**End date of the appointment:** April 5, 2024

**Application Process:** A general Application should be submitted online by **Friday September 1, 2023 (5:00 pm).** Please consult Departmental Website for application instructions: http://biochemistry.utoronto.ca/about/hiring

The University strives to be an equitable and inclusive community, and proactively seeks to increase diversity among its community members. Our values regarding equity and diversity are linked with our unwavering commitment to excellence in the pursuit of our academic mission. The University is committed to the principles of the Accessibility for Ontarians with Disabilities Act (AODA). As such, we strive to make our recruitment, assessment and selection processes as accessible as possible and provide accommodations as required for applicants with disabilities. If you require any accommodations at any point during the application and hiring process, please contact uoft.careers@utoronto.ca. During employment, to request accommodation from the University, contact the supervisor or department chair and/or Health & Wellbeing Programs & Services at hwb@utoronto.ca. For more information about accommodations at U of T, please visit our Accommodation webpage.

The hiring criteria for Teaching Assistant positions are academic qualifications, the need to acquire experience, previous experience and previous satisfactory employment under the provisions of this Collective Agreement.

Candidates who are members of Indigenous, Black, racialized and LGBTQ2S+ communities, persons with disabilities, and other equity seeking groups are encouraged to apply, and their lived experience shall be taken into consideration as applicable to the position.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from racialized persons / persons of colour, women, Indigenous / Aboriginal People of North America, persons with disabilities, LGBTQ2S+ persons, and others who may contribute to the further diversification of ideas.

This job is posted in accordance with the CUPE 3902 Unit 1 Collective Agreement.

The position(s) posted above is (are) tentative, pending final course determinations and enrolments.

Positions posted here are open to Graduate Students in the School of Graduate Studies, Postdoctoral Fellows and Undergraduate Students in the University of Toronto.

Preference in hiring shall be given to Graduate Students enrolled in the School of Graduate Studies of the University of Toronto or those who have made application to be enrolled in the School of Graduate Studies of the University of Toronto.