



UNIVERSITY OF TORONTO
FACULTY OF APPLIED SCIENCE & ENGINEERING

First Year Program, Faculty of Applied Science & Engineering
APS 110H1 – Engineering Chemistry and Materials Science, Fall 2017
Emergency Job Posting: CUPE 3902 Unit 1

This course is structured around the principle of the structure-property relationship. This relationship refers to an understanding of the microstructure of a solid, that is, the nature of the bonds between atoms and the spatial arrangement of atoms, which permits the explanation of observed behaviour. Observed materials behaviour includes mechanical, electrical, magnetic, optical, and corrosive behaviour. Topics covered in this course include: structure of the atom, models of the atom, electronic configuration, the electromagnetic spectrum, band theory, atomic bonding, optical transparency of solids, magnetic properties, molecular bonding, hybridized orbitals, crystal systems, lattices and structures, crystallographic notation, imperfections in solids, reaction rates, activation energy, solid-state diffusion, materials thermodynamics, free energy, and phase equilibrium.

One Teaching Assistant position is available for **APS 110H1, from September 1 2017 to December 31, 2017**. The contract will be for **100 hours, at the rate of \$43.65 per hour, plus 4% vacation pay**.

Qualifications: The successful candidate must be a senior PhD student in Materials Science & Engineering or Chemical Engineering with demonstrated excellence as a teaching assistant in large first year chemistry and materials science courses. Additional teaching experience in related areas is considered an asset. A strong management skillset will also be required, as this role involves the management of a team of teaching assistants. Excellent communication skills as well as prioritization and time management skills are essential.

Duties: The teaching assistant will work directly with the course coordinator, Professor Scott Ramsay to support the delivery and ongoing development of the course. This will include the creation of a set of problem set and practice test questions, scheduling and training the TAs to deliver the hands-on activities, and marking. The course is expected to have 400 students.

Please e-mail a cover letter and CV **in one document as a single pdf document to the First Year Office: fyjobs@ecf.utoronto.ca**. You must include the Job Title: “APS110 Head TA” in the subject line of your email.

The application deadline Wednesday August 09, 2017 at 11:59 pm

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

Posting Date: Wednesday August 02, 2017.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.