

WINTER 2019
Physical and Environmental Sciences - Undergraduate

University of Toronto Scarborough
DEPARTMENT OF PHYSICAL & ENVIRONMENTAL SCIENCES
Fall 2018 TEACHING ASSISTANT POSITIONS
CUPE3902 UNIT 1

Posted On: October 4, 2018
APPLICATION DEADLINE: November 2, 2018

Each position, as well as the final number of hours for each position, will be dependent on the final enrolment numbers and available financial resources. All applicants must come to UTSC campus to sign original contract(s). The Chair of the Department, will make any and all offers of employment on behalf of the Dept. of Physical and Environmental Sciences. No other offers or notices of the outcome of the applications are authorized.

Course Code and Title	Course Enrollment (est.)	Number of Positions (est.)	Size of Appointment in Hours(est.)	Qualifications	Duties
ASTA02H3 Introduction to Astronomy and Astrophysics II: Beyond the Sun and Planets	135	2 Tutors	70 Hours	Enrolment as a graduate student or academic qualifications, appropriate background in the subject; undergraduates with the appropriate background are welcome to apply.	Duties for the positions vary and may include conducting weekly tutorial sessions, grading, quizzes, tests and assignments, reports/essays/short answer tests, invigilating term tests and other duties as required by the course. Specific duties for any of these positions are defined in the Description of Duties and Allocation of Hours.
ASTC25H3 Astrophysics of Planetary Systems	30	1 Marker	20 Hours	Enrolment as a graduate student or academic qualifications, appropriate background in the subject; undergraduates with the appropriate background are welcome to apply.	Marking, exam invigilation, marks management.
CHMA10H3 Introductory Chemistry I: Structure and Bonding	175	1 Teaching Assistant	65 Hours	A B.Sc. in chemistry or related discipline is required.	Helping 1st and 2nd year students with lab and lecture material and communication with course instructors and lab coordinators if necessary. Reporting to the faculty advisor on a regular basis regarding any issues that may arise with the Chemistry Help Centre. Periodically checking the

					CHMA10 quercus page to keep up-to-date on lecture and lab material.
CHMA11H3 Introductory Chemistry II: Reactions and Mechanisms	1150	9 Lab Demonstrators	58 Hours	A B.Sc. is required. However the positions are also open to undergraduate chemistry students at UTSC who have demonstrated a sound knowledge of the relevant subject matter and who have the ability and responsible nature to impart that knowledge to the students in the lab.	Attending training and weekly organizational meetings with the supervisor. Supervising approximately 24 students in the laboratory. Demonstrating the required lab techniques. Reading the lab manual and relevant material to prepare the pre-lab talk for each experiment. Evaluating student preparation and performance. Marking lab note books according to the marking scheme that is supplied by the supervisor. Providing student support via Chemistry Help Centre. Maintaining attendance and marks records. Completing the WHMIS training.
CHMB21H3 Chemical Structure and Spectroscopy	40	1 Teaching Assistant	40 Hours	Knowledge of quantum mechanics and quantum chemistry, previous experience with electronic structure programs: Gaussian and GaussView.	Marking homework, midterm and exams. Helping students with theoretical material.
CHMB41H3 Organic Chemistry I	128	2 Lab Demonstrators	60 Hours	B. Sc.; or undergraduate with credits in second year organic Chemistry courses, and at least one third year organic course that includes a laboratory.	Preparation and demonstrating to second year organic students (up to 24). Administering and marking quizzes, lab tests, marking lab notebooks; marking of products and results; submitting all marks in a timely fashion to the Administrative Assistant; attending WHMIS training, attending meetings with the course co-ordinator or with other TA's. Keeping a safe environment.

CHMB42H3 Organic Chemistry II	400	8 Lab Demonstrators	60 Hours	Must have completed at least one third year organic chemistry course, with a laboratory component.	May include; demonstrating and setting up laboratories; grading quizzes, data sheets, laboratory notebooks, products and results; keeping marks records; invigilating term tests and final exams; meeting with the supervisor, completing the WHMIS training.
CHMB42H3 Organic Chemistry II	400	4 Tutors	37 Hours	Must have completed at least one third year organic chemistry course, with a laboratory component. A minimum A- grade in second year organic chemistry.	Running weekly tutorials where students work through graded problem sets in small groups, answering student questions and delivering short lessons at the board as needed to address common questions/misconceptions, grading group problem sets and individual quizzes, recording marks, meeting with supervisor.
CHMB42H3 Organic Chemistry II	400	2 Markers	40 Hours	Candidate must have a B.Sc. or undergraduate with experience and credits in third year organic chemistry courses, and at least 2 courses that include a laboratory component. Must have good knowledge of spectroscopic theory (IR,NMR).	The successful candidate will assist in marking of: midterm exam, lab tests and final exam. They must be available for intensive marking sessions at these times.
CHMB55H3 Environmental Chemistry	115	1 Marker	85 Hours	Strong background in chemistry. Preferably a graduate student in environmental chemistry.	Marking assignments and exams. Potentially some invigilation.
CHMC31Y3 Intermediate Inorganic Chemistry	20	1 Lab Demonstrator	120 Hours	Must have received an A in both CHMB31 and CHMC31(Inorganic Chemistry I & II at UTSC)or must have good knowledge of Molecular orbital theory, crystal field theory, spectral states (Tanabe-Sugano diagrams), Kinetics	Meeting with Supervisor. Prep. Reading Manuals. Contact with students. Grading of some laboratory assignments, quizzes, data sheets.
CHMD16H3 Environmental and Analytical Chemistry	18	1 Lab Demonstrator	55 Hours	A graduate degree or equivalent qualification in Environmental or Analytical Chemistry. The candidate must have sufficient knowledge in the discipline of the course to interpret the course material, as demonstrated by either having a graduate degree, or currently through	Demonstrating and supervising laboratory experiments by students enrolled in the course. Working with students in the laboratory to ensure that they complete their experiments in a safe and timely manner. The teaching

				graduate-level research in the subject area.	assistant will also be responsible for marking laboratory reports and compiling the grades for the course instructor. The candidate may also be required to attend any necessary training, WHMIS, or course meetings.
EESB02H3 Principles of Geomorphology	80	1 Teaching Assistant	50 Hours	A degree in environmental science or geology or geography. Strong background in fluvial geomorphology. Familiarity with GIS	Conduct lab and field practical sessions - this will involve assisting students with mapping, GIS, field and lab instruments, field sampling, and laboratory analysis. Grading of student assignments. Assisting the instructor with grading of midterm and final exams
EESB03H3 Principles of Climatology	175	2 Teaching Assistants	100 Hours	Enrolment as a graduate student or academic qualifications, appropriate background in the subject.	Duties for this position include conducting weekly tutorial sessions. Marking assignments and exams, and possibly invigilating, term tests.
EESB19H3 Mineralogy	20	1 Teaching Assistant	50 Hours	Applicants must have completed an undergraduate Mineralogy course (including the prerequisite Chemistry course). Preference will be given to students who also completed an undergraduate Petrology course.	Assisting instructor during laboratory exercises, guiding students through exercises, marking weekly lab assignments
EESB20H3 Sedimentology and Stratigraphy	40	1 Lab Demonstrator	40 Hours	The candidate should have at least one undergraduate Sedimentology course on the transcript, during which she/he learned the basics of sedimentology and stratigraphy (in theory and practice). The topics of the course include clastic and carbonate sedimentology, as well as on basic stratigraphic methodology.	The candidate will have to guide the students during lab exercises and mark the handed in lab exercises.
EESC18H3 The Great Lakes: An Introduction to Physical Limnology	50	1 Teaching Assistant	25 Hours	Candidates should have completed a M.Sc. engineering, physics, geography or environmental sciences or a related area of environmental science such that they have a good understanding of physical limnology and water circulation.	The candidates must help teach the practical portion of the course which includes; use of laboratory flumes to demonstrate concepts of fluid dynamics in lakes, setup and cleanup. There will be some marking of mid-term and final exams. A large part of the TA time will be involved in helping students with their final

					presentation, which will be in an online video format.
EESC30H3 Microbial Biogeochemistry	40	2 Teaching Assistant(s)	70 Hours	B.Sc. In biological sciences, experience in microbiology required, M.Sc. in microbial ecology an asset.	Managing tutorials, administering Tests, advising on poster presentations, Grading poster presentations, holding office hours for students.
EESD06H3 Climate Change Impact Assessment	38	1 Teaching Assistant	70 Hours	The position is open to graduate environmental science students who have a sound background of climate change science and modeling. The candidate should be PhD student or should have a PhD in Environmental Science or Geography or Physics with a specialization in Climate Change. Sufficient knowledge of the statistical methods used in climate time series analysis is required. Preference will be given to candidates who previously completed the Climate Change Impact Assessment course at the graduate or undergraduate level (EED06 or EES117).	Marking, leading tutorials, office hours, mark management on blackboard, lecture(s), meeting with supervisor, correspond with students electronically, invigilation of mid-term and final.
PHYA10H3 Introduction to Physics IA	135	1 Practical Leader	71 Hours	Those with a B.Sc Degree in Physics or higher are welcome to apply. However, preference will be given to Graduate students in Physics at UofT. Undergraduate students who demonstrate deep understanding of physics and have the enthusiasm with strong personality to work as practical leaders will also be considered. Previous experience and demonstrated excellence in tutoring or mentoring is also required.	Practical leaders will be conducting 3-hour weekly sessions for approximately 23 students per group. During these sessions they will help students in the various activities designed for the students, as well as demonstrating on the use of laboratory equipment. The activities include laboratory experiments, conceptual problems, computer simulations, and detailed analytical problems. Practical leaders will be marking activity notebooks, quizzes, formal reports, and tests.

PHYA21H3 Physics II for the Physical Sciences	175	3 Practical Leaders	71 Hours	Those with a B.Sc Degree in Physics or higher are welcome to apply. However, preference will be given to Graduate students in Physics at UofT. Undergraduate students who demonstrate deep understanding of physics and have the enthusiasm with strong personality to work as practical leaders will also be considered. Previous experience and demonstrated excellence in tutoring or mentoring is also required.	Practical leaders will be conducting 3-hour weekly sessions for approximately 20 students per group. During these sessions they will help students in the various activities designed for the students, as well as demonstrating on the use of laboratory equipment. The activities include laboratory experiments, conceptual problems, computer simulations, and detailed analytical problems. Practical leaders will be marking activity notebooks, quizzes, formal reports, and tests.
PHYA22H3 Introduction to Physics IIB	175	2 Practical Leaders	71 Hours	Those with a B.Sc Degree in Physics or higher are welcome to apply. However, preference will be given to Graduate students in Physics at UofT. Undergraduate students who demonstrate deep understanding of physics and have the enthusiasm with strong personality to work as practical leaders will also be considered. Previous experience and demonstrated excellence in tutoring or mentoring is also required.	Practical leaders will be conducting 3-hour weekly sessions for approximately 20 students per group. During these sessions they will help students in the various activities designed for the students, as well as demonstrating on the use of laboratory equipment. The activities include laboratory experiments, conceptual problems, computer simulations, and detailed analytical problems. Practical leaders will be marking activity notebooks, quizzes, formal reports, and tests.
PHYC11H3 Intermediate Physics Laboratory II	20	1 Marker	20 Hours	Those with a B.Sc Degree in Physics or higher are welcome to apply. However, preference will be given to Graduate students in Physics at UofT. Undergraduate students who demonstrate deep understanding of physics and have the enthusiasm with strong personality to work as practical leaders will also be considered. Previous experience and demonstrated excellence in tutoring or mentoring is also required.	Responsibilities include grading laboratory reports and notebooks, providing written feedback to students in laboratory notebooks, recording marks and reporting on student progress to the course co-ordinator.

PHYD38H3 Nonlinear Systems and Chaos	20	1 Marker	10 Hours	Enrolment as a graduate student or academic qualifications, appropriate background, especially in ordinary differential equations; undergraduates with the appropriate background are welcome to apply.	Marking,marks management.
PSCD02H3 Current Questions in Mathematics and Science	40	1 Marker	20 Hours	Background in physical and mathematical sciences. Applicants should either be enrolled graduate studies or posses a graduate degree.	Evaluating students assignments. Maintaining marks records.
PSCD11H3 Communicating Science: Film, Media, Journalism, and Society	30	1 Teaching Assistant	60 Hours	Applicants must have a background in Environmental Science or Geology at the Graduate level. Candidates must have good oral and written skills. Knowledge of Audio Visual would be an asset.	Assisting in the marking of the term papers, and exams. Answering student emails. Assisting instructor(s) with the clerical and administrative duties. Some assistance with the technical preparations for the lecturers.

Department Standards and Policies are available in the Department office and in the CUPE, Local 3902 Unit 1 office. The position(s) posted above is (are) tentative, pending final course determinations, enrolments and available resources. Late applications will not be accepted. All positions include the completion of any regular course grading not completed by, January 1, 2019 for Summer, December 31, 2019 for F courses and April 30, 2019 for S and Y courses. The following rates apply: Undergraduate \$45.33per hour, SGS I \$45.33 per hour, SGS II \$45.33 per hour. Please note that should rates stipulated in the collective agreement vary from rates stated in this posting, the rates stated in the collective agreement shall prevail. The rate of pay is established by the Collective Agreement between Canadian Union of Public Employees (CUPE), Local 3902 Unit 1 and the University of Toronto. These jobs are posted in accordance with the CUPE3902 Unit 1 Collective Agreement, It is understood that some announcements of vacancies are tentative, pending final course determination and enrolment. If during the application and/or selection process you require accommodation due to a disability, please contact Janet Blakely at blakely@utsc.utoronto.ca or 416-287-7082. Duties of this position shall be performed at the campus on which the position is located. Where the duties are intended to be performed at another location such other location will be specified in the posting. 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.

Check our website for detailed information on the application procedure at

https://webapps.utsc.utoronto.ca/taship/modules/postings/postings.php?d=258&s_a=true

Although a graduate student preference as to the campus location of his/her TA appointment will be taken into account, both the initial TA appointment (or CI appointment) and the subsequent appointment obligation related to that appointment may be met through position(s) on any one of the three University campuses (UTM, UTSC or St. George). All applicants must come to UTSC campus to sign off on original contract(s).

Please apply online:

https://webapps.utsc.utoronto.ca/taship/modules/postings/postings.php?d=258&s_a=true