



FACULTY OF ARTS & SCIENCE
Teaching Assistant – CUPE 3902, Unit 1
September 1, 2025 – December 31, 2025

STA2503HF L0101 – Applied Probability for Mathematical Finance

This course features studies in derivative pricing theory and focuses on building basic financial theory and their applications to various derivative products. A working knowledge of probability theory, stochastic calculus, knowledge of ordinary and partial differential equations and familiarity with the basic financial instruments is assumed. The topics covered in this course include, but are not limited to: binomial pricing models; continuous time limits; the Black-Scholes model; the Greeks and hedging; European, American, Asian, barrier and other path-dependent options; short rate models and interest rate derivatives; convertible bonds; stochastic volatility and volatility derivatives; currency and commodity derivative.

Delivery Mode: In-Person

Qualifications

- Academic background in Statistical Sciences
- PhD student (or graduate) in actuarial science, statistics or biostatistics

Relevant Criterion

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

Duties

Duties are in person unless otherwise indicated and will include any or all of the following:

Preparation for classes, preparation of written or audio-visual materials, designing and maintaining course websites, attending lectures, running tutorial sessions, facilitating and evaluating student engagement on online discussion boards, participating in training sessions, meeting with the instructors, teaching, leading discussions, and supervising laboratories, rating students' work, holding office hours, consulting with students (including electronic consultation), writing and grading tests, examinations and lab sets, grading essays and term papers, invigilating midterm and final exams, setting up experiments, conducting field trips, and conferring with the supervisor in charge, as required by the employee's teaching duties.

Duties of this position shall be performed on the St. George Campus.

Instructor:	Xiaofei Shi
Estimated Course Enrolment:	45
Meeting Schedule:	Lecture: Wednesday: 2 PM – 5 PM (tentative)
	Tutorials: Monday: 11 AM – 1 PM (tentative)
Approximate Hours of Work:	1 @ 80 hours
Approximate Number of Positions:	1
Rate of Pay:	UG/SGS I/II - \$52.97/hour (+4% vacation pay)

Application Process

Application information is available at <https://www.statistics.utoronto.ca/employment-opportunities/cupe-positions-unit-1>. The deadline to submit your application is **July 18, 2025**. For more information, you may contact:



Statistical Sciences UNIVERSITY OF TORONTO

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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 2SLGBTQ+ 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, 2SLGBTQ+ 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.