UNIVERSITY OF TORONTO
Department of Statistical Sciences

ACT245 – Financial Principles for Actuarial Science I
(Summer 2025)

Instructor: Yu Wang

Teaching Assistant: Brandon Tam

Lecture & Tutorial Location: Online

Course Schedule

Date	7-8pm	8-9pm	9-10pm	Lecture Coverage
July 2	Lec 1			Spot & Forward Rates, Yield Curve, Term Structure, Duration, Convexity and Immunization
July 7	Lec 2		Tut	Introduction to Derivatives, Arbitrage, Prepaid Forward Contracts
July 9	Lec 3		Tut	Forward Contracts
July 14	Test 1	Lec 4		Futures Contracts
July 16	Lec 5		Tut	Introduction to Options
July 21	Lec 6		Tut	Put-Call Parity
July 23	Lec 7		Tut	Option Spreads
July 28	Test 2	Lec 8		Option Strategies
July 30	Lec 9		Tut	Non-directional Option Strategies
August 6	Lec 10		Tut	General Swaps and Prepaid Swaps
August 11	Lec 11		Tut	Interest Rate Swaps
August 13	Test 3		Make-Up Test	

Note:
- Date / time changes (if any), lecture notes and test information will be provided in Quercus.
- Lectures and tutorials typically start 10 minutes after the hour e.g. 7:10pm.
- Should you be forced to miss a test due to legitimate reasons such as illness, you are required to inform the instructor within 2 days of the test date. A cumulative make-up test will be arranged, covering <u>materials from the entire course</u>.

Course Evaluation
Course Grade = 0.40 × *Max* (Test 1, Test 2) + 0.35 × *Min* (Test 1, Test 2) + 0.25 × Test 3

Required Textbook
Actuarial Science Coursebook for ACT240H + ACT245H (S. Broverman)
ACT245 will cover Sections 13 – 20

Academic Integrity
Please visit: www.academicintegrity.utoronto.ca

Academic integrity is a fundamental value of learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that your university degree is valued and respected as a true signifier of your individual academic achievement.

The University of Toronto's *Code of Behaviour on Academic Matters* outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and the penalties that may be imposed. Potential offences include, but are not limited to:
- Obtaining or providing unauthorized assistance on a test/exam – this includes working in groups on an online test/exam that is supposed to be individual work.
- Using or possessing any unauthorized aid, including a cell phone, or searching for answers online.
- Looking at someone else's answers, or working together to answer questions.
- Letting someone else look at your answers.
- Misrepresenting your identity or having someone else complete your test/exam.

All suspected cases of academic dishonesty will be reported and investigated following the procedures outlined in the *Code of Behaviour on Academic Matters*.

Minimum Grade C Requirement for Actuarial Science Courses
In order to enroll in any 300 or 400-level ACT course, the minimum grade of 63% must be obtained in each of ACT240, ACT245 and ACT247.

Copyright Notice
All course materials, including lecture notes and test/exam questions, are the property of the instructor or the university (as relevant), and may not be distributed online or by any other means.

Canadian Institute of Actuaries (CIA)'s University Accreditation Program (UAP)
UAP has moved away from the course-by-course accreditation and is now based on a program accreditation method. Under the new credentialing pathway, to obtain ACIA (Associate of CIA) professional credential, students need to:

1. Complete a degree from an actuarial program (ACT Specialist or Major) at University of Toronto and pass a list of mandatory courses. No minimum course grade or GPA is required. The full list of U of T's 16 mandatory courses are: ACT240, ACT245, ACT247, ACT348, ACT349, ACT370, ACT451, ACT452, ACT466, STA237/STA257, STA238/STA261, STA302, STA314, ECO101, ECO102, MGT201/RSM219; and
2. Complete the ACIA Modules; and
3. Complete an open-book ACIA Capstone Exam.

For further information, please visit: www.cia-ica.ca/becoming-a-member/qualification-pathways/