# **ACTU 257** Actuarial Mathematics I Winter 2023

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Schedule: Tuesdays & Thursdays, 14:45-16:00 (MB 3.210).

**Office Hours:** TBA.

Goal: This course introduces the student to the mathematical models for present

> values of claims contingent on some event, e.g. survival (Life) or sickness (Health). More specifically, the course focuses on the mathematics of life insurance and pensions. This course prepares for part of Society of Actuaries Exams FAM and ALTAM. This course is also required to apply to the

Canadian Institute of Actuaries program exemption.

Reference: Actuarial Mathematics for Life Contingent Risks, 3rd Edition, by D.C.M. Dickson,

M.R. Hardy, and H.R. Waters, Cambridge University Press, 2019.

**Calculators:** Calculators allowed in exams for this course are the calculators allowed by

> the Math Department or the battery- or solar-powered Texas Instrument calculators, models BA-II Plus\*, BA-II Plus, TI-30X, TI-30Xa (the official CAS

calculator) or TI-30X II\*.

**Assignments:** There will be eight to ten assignments (Moodle).

**Tests and Final:** First Test: Week 6

> Second Test: Week 10

Third Test: Examination period in April

**Grading:** The final grade will be determined as follows:

> Assignments: (10%)Class Test 1: (22.5%)Class Test 2: (22.5%)Final Exam: (45%)

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset assigned problems will be marked of the and should

therefore attempt all assigned problems.

NOTE: THERE WILL BE NO SUPPLEMENTAL FOR THIS COURSE AND NO

100% OPTION FOR THE FINAL EXAM.

### Academic Integrity and the Academic Code of Conduct

This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: <a href="mailto:concordia.ca/students/academic-integrity">concordia.ca/students/academic-integrity</a>." [Undergraduate Calendar, Sec 17.10.2]

### Use of Zoom

Note: Zoom is included as an institutionally-approved technology. This means we have been assured of the privacy protections needed to use freely within the classroom)

Zoom might be used in this course to facilitate learning at a distance. It may be used to record some or all of the lectures and/or other activities in this course. If you wish to ensure that your image is not recorded, speak to your instructor as soon as possible.

Also, please note that you may not share recordings of your classes and that the instructor will only share class recordings for the purpose of course delivery and development. Any other sharing may be in violation of the law and applicable University policies, and may be subject to penalties.

#### **Behaviour**

All individuals participating in courses are expected to be professional and constructive throughout the course, including in their communications.

Concordia students are subject to the Code of Rights and Responsibilities which applies both when students are physically and virtually engaged in any University activity, including classes, seminars, meetings, etc. Students engaged in University activities must respect this Code when engaging with any members of the Concordia community, including faculty, staff, and students, whether such interactions are verbal or in writing, face to face or online/virtual. Failing to comply with the Code may result in charges and sanctions, as outlined in the Code.

### **Intellectual Property**

Content belonging to instructors shared in online courses, including, but not limited to, online lectures, course notes, and video recordings of classes remain the intellectual property of the faculty member. It may not be distributed, published or broadcast, in whole or in part, without the express permission of the faculty member. Students are also forbidden to use their own means of recording any elements of an online class or lecture without express permission of the instructor. Any unauthorized sharing of course content may constitute a breach of the Academic Code of Conduct and/or the Code of Rights and Responsibilities. As specified in the Policy on Intellectual Property, the University does not claim any ownership of or interest in any student IP. All university members retain copyright over their work.

## **Extraordinary circumstances**

In the event of extraordinary circumstances and pursuant to the Academic Regulations the University may modify the delivery, content, structure, forum, location and/or evaluation scheme. In the event of such extraordinary circumstances, students will be informed of the change.