Department of Mathematics & Statistics
Concordia University

ACTU 386
Actuarial Math Lab II
Winter 2023

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Text: There is no required text.

Course Evaluation: Assignments 100%. No midterm/final exam.

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 of the assigned problems will be marked and should therefore attempt all assigned problems.

Introduction to Excel (5 weeks) – 35% of the overall score for the course

Excel			
Introduction to the Basic Concepts Relative to a Pension Plan • Types of pension plans • Normal Cost • Actuarial Liability Excel Environment Others actuarial uses of Excel	Commonly Used functions Lookup functions Move, Copy and Edit methods Window Options Undo function Help functions	Creating a chart Formatting a chart Functions related to dates Find and Replace functions Sort functions Subtotal functions AutoFilter functions Pivot Table functions Protection features	Control objects Functions related to text VBA – User defined functions Iterative functions Comments Data Form functions Audit functions Error messages

Introduction to Access (5 weeks) – 35% of the overall score for the course

Access			
Access Environment Creating a database Editing a table Getting info in and out of a database	Creating Forms Sort and Filter functions Queries SQL queries	Keeping the information accurate Reports Sharing the database Security	Pages and Modules

Introduction to Axis (3 weeks) – 30% of the overall score for the course

Axis	
Introduction to the basic concepts relative to life insurance o Definition of life insurance o Different types of coverage available ▪ term vs Whole life ▪ universal vs. traditional ▪ lapse supported product Actuarial roles in an insurance company	Introduce the concept of modules, datasets Learn how to navigate within AXIS Describe the concepts of Funds, Subfunds and Cells Describe the mechanics of a cell Learn to use certain functionalities: overrides, filters, etc... Work through a case study of how Axis can be used to price a simple life insurance plan.

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: concordia.ca/students/academic-integrity." *[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.