Department of Mathematics & Statistics
Concordia University

ACTU 386
Actuarial Math Lab II
Winter 2015

Instructor: _____

Office/Tel.: _____

Office Hours: _____

Course: The course is divided in 2 sections:
- Introduction to Excel & Access (2/3 of the overall score for the course)
- Introduction to Axis (1/3 of the overall score for the course)

Introduction to Excel & Access (8 weeks)

<table>
<tr><th colspan="4">Excel</th></tr>
<tr><td>Introduction to the Basic Concepts Relative to a Pension Plan

• Types of pension plans
• Normal Cost
• Actuarial Liability</td><td rowspan="2">Move, Copy and Edit methods
Window Options
Undo function
Help functions
Creating a chart
Formatting a chart
Functions related to dates</td><td rowspan="2">Find and Replace functions
Sort dfunctions
Subtotal functions
AutoFilter functions
Pivot Table functions
Protection features
Control objects
Functions related to text</td><td rowspan="2">VBA – User defined functions
Iterative functions
Comments
Data Form functions
Audit functions
Error messages
Others actuarial uses of Excel</td></tr>
<tr><td>Excel Environment
Commonly Used functions
Vlookup function</td></tr>
<tr><th colspan="4">Access</th></tr>
<tr><td>Access Environment
Creating a database
Editing a table
Getting info in and out of a database</td><td>Creating Forms
Sort and Filter functions
Queries
SQL queries</td><td>Keeping the information accurate
Reports
Sharing the database
Security</td><td>Pages and Modules</td></tr>
</table>

Evaluation: Exam: 20% of the Excel/Access portion
Assignment: 80% of the Excel/Access portion

Introduction to Axis (5 weeks)

Introduce Basic Concepts Relative to Life Insurance	Give a high level view of Axis and Its Uses
○ Definition of life insurance ○ Different types of coverage available ▪ term vs Whole life ▪ universal vs. traditional ▪ lapse supported product	○ 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 an case study of how Axis can be used to price a simple life insurance plan.

Evaluation: 100% of the Axis portion will be tested through one assignment (no formal exam).