Department of Mathematics & Statistics
Concordia University

| **ACTU 386** |
| Actuarial Math Lab II |
| ***Winter 2016*** |

Instructor: _____

Office/Tel.: _____

Office Hours: _____

Course: The course is divided in 3 sections:
- Introduction to Excel (30% of the overall score for the course)
- Introduction to Axis (40% of the overall score for the course)
- Introduction to Access (30% of the overall score for the course)

Introduction to Excel (4 weeks)

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

Evaluation: Quiz: 20% of the Excel portion
Assignment: 80% of the Excel portion

Introduction to Axis (5 weeks)

Introduce Basic Concepts Relative to Life Insurance	Give a high level view of Axis and Its Uses
o Definition of life insurance o Different types of coverage available ▪ term vs Whole life ▪ universal vs. traditional ▪ lapse supported product	o introduce the concept of modules, datasets o learn how to navigate within AXIS o describe the concepts of Funds, Subfunds and Cells o describe the mechanics of a cell o learn to use certain functionalities: overrides, filters, etc... o 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).

Introduction to Access (4 weeks)

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

Evaluation: Quiz: 20% of the Access portion
Assignment: 80% of the Access portion