ACTU 386 Actuarial Math Lab II Winter 2025

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Class Schedule: Thursdays, 17:45-20:15.

Note: There will be a mid-term break from February 24 to March 2.

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

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

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

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

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

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