

**ACTU 386**  
 Actuarial Math Lab II  
 Winter 2024

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**Class Schedule:** Thursdays, 17:45-20:15, LB 915-4.

**Office Hours:** TBA.

**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 <ul style="list-style-type: none"> <li>• Types of pension plans</li> <li>• Normal Cost</li> <li>• Actuarial Liability</li> </ul>	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
Excel Environment Others actuarial uses of Excel			

**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	
<p>Introduction to the basic concepts relative to life insurance</p> <ul style="list-style-type: none"> <li>○ Definition of life insurance</li> <li>○ Different types of coverage available                             <ul style="list-style-type: none"> <li>▪ term vs Whole life</li> <li>▪ universal vs. traditional</li> <li>▪ lapse supported product</li> </ul> </li> </ul> <p>Actuarial roles in an insurance company</p>	<p>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.</p>

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

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