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>
<thead>
<tr>
<th>Excel Environment</th>
<th>Commonly Used functions</th>
<th>Vlookup function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move, Copy and Edit methods</td>
<td>Find and Replace functions</td>
<td>VBA – User defined functions</td>
</tr>
<tr>
<td>Window Options</td>
<td>Sort functions</td>
<td>Iterative functions</td>
</tr>
<tr>
<td>Undo function</td>
<td>Subtotal functions</td>
<td>Comments</td>
</tr>
<tr>
<td>Help functions</td>
<td>AutoFilter functions</td>
<td>Data Form functions</td>
</tr>
<tr>
<td>Creating a chart</td>
<td>Pivot Table functions</td>
<td>Audit functions</td>
</tr>
<tr>
<td>Formatting a chart</td>
<td>Protection features</td>
<td>Error messages</td>
</tr>
<tr>
<td>Functions related to dates</td>
<td>Control objects</td>
<td>Others actuarial uses of Excel</td>
</tr>
</tbody>
</table>

Excel Environment

Creating a database  
Editing a table  
Getting info in and out of a database

Commonly Used functions

Vlookup function

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

Introduction to Axis (5 weeks)

<table>
<thead>
<tr>
<th>Introduce Basic Concepts Relative to Life Insurance</th>
<th>Give a high level view of Axis and Its Uses</th>
</tr>
</thead>
</table>
| 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).