ACTL90005
Life Contingencies

SUBJECT GUIDE

Semester 2, 2013

Prepared by
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Centre for Actuarial Studies
Department of Economics
Faculty of Business and Economics
Subject Outline

Subject Aims

The major aim of this subject is to study pricing and reserving for life insurance policies. The completion of this subject with a good performance in all exams will lead to exemption from professional exam CT5.

Textbooks

*Actuarial Mathematics for Life Contingent Risks*, by Dickson, Hardy and Waters, Chapters 1, 3, 4, 5, 6, 7, 8, 11, 12.

*Solutions Manual for Actuarial Mathematics for Life Contingent Risks*, by Dickson, Hardy and Waters.

Learning Outcomes

Subject Objectives

To view the subject objectives and the generic skills you will develop through successful completion of this subject, see the University Handbook:


To view the learning goals, generic skills and graduate attributes for your degree, please locate the University Handbook entry for your degree at http://handbook.unimelb.edu.au/

Generic Skills

In this subject you will have the opportunity to develop important generic skills. These include: written communication, problem solving, probabilistic reasoning, statistical reasoning, application of theory to practice, synthesis of data and other information.

Prerequisites

ACTL90007 Life Insurance Models 2 (corequisite)
Subject Contents

- Select mortality
- Insurance and annuity functions
- Premium calculation
- Policy values
- Guarantees, surrenders and policy alterations
- Joint-life theory and applications
- Multiple state models and applications
- Discounted emerging cashflow techniques
- Mortality measures

Academic Staff Contact Details

Lecturer Contact Details

Your coordinator is Professor David Dickson

Email: dcmd@unimelb.edu.au

Room: 324, FBE Building

Consultation hours during teaching weeks: Tuesday 3.30-4.30pm, or by appointment

Email Protocol

Please note that we are only able to respond to student emails coming from a University email address. Please do not use personal email addresses such as Yahoo, Hotmail or even business email addresses. Emails from non-University email addresses may be filtered by the University's spam filter, which means that we may not receive your email. All correspondence relating to this subject will only be sent to your University email address. Note that you must first activate your University email address before you can send or receive emails at that address. You can activate your email account at this link: http://accounts.unimelb.edu.au/.

While academic staff endeavor to address queries received via email, it is more appropriate to resolve substantive questions during lectures and tutorials and during
normal consultation hours. With this in mind, we encourage students to attend all lectures and tutorials and to familiarize themselves with the consultation hours offered by the lecturers in this subject.

Lectures and Tutorials

Lecture Times

Tuesday, 11:00-12:00: Old Metallurgy, Room 202
Thursday, 10:00-11:00: Old Metallurgy, Room 103

Lecture Participation Requirements

Lecture attendance is very important and good class behaviour is expected. Mobile phones should be switched OFF (not silent, but OFF).

Lecture Slides

Lecture slides will be available on the LMS. Some slides may be incomplete in which case students are expected to take notes in lectures.

Tutorials

Tuesday, 2:15-3:15: Room 5016, The Spot

Assessment

Assessment Overview

The assessment comprises the following:

<table>
<thead>
<tr>
<th>Assessment Task</th>
<th>Individual or Group</th>
<th>Due</th>
<th>Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Assignment</td>
<td>Individual</td>
<td>Week 12</td>
<td>10%</td>
</tr>
<tr>
<td>Mid-semester exam</td>
<td>Individual</td>
<td>Week 7</td>
<td>20%</td>
</tr>
<tr>
<td>End-of-semester exam</td>
<td>Individual</td>
<td>Assessment period</td>
<td>70%</td>
</tr>
</tbody>
</table>

- The date for the mid-semester exam will be announced nearer the time. It will be a 1 hour exam. The likely time is Thursday morning of Week 7 at 9am.
- A 2 hour final exam will be given during the end of semester exam period.
Exam Policy

The Faculty requires that you are available for the entire examination period. Supplementary exams will not be provided in cases of absence during the examination period, unless the absence is due to serious illness or other serious circumstances. See the Special Consideration web site for more information:

http://fbe.unimelb.edu.au/csc/assistance/special_consideration

The examination period for this semester is 4-22 November.

Special Consideration

Students who have been significantly affected by illness or other serious circumstances during the semester may be eligible to apply for Special Consideration.

The following website contains detailed information relating to who can apply for Special Consideration and the process for making an application:

http://mbs.unimelb.edu.au/students/services/special_consideration

Other Subject Resources

FBE Centre for Excellence in Learning and Teaching

The FBE Centre for Excellence in Learning and Teaching (CELT) provides services and resources to enhance your learning in Business and Economics.

Maximise your academic success by taking part in CELT services that develop:

- Skills in research, referencing and academic writing
- Mastery of different assignment types
- Effective study techniques
- Abilities to learn effectively with your peers
- Transition to the faculty and understanding of academic expectations

The Centre also provides an extensive range of helpsheets that can enhance your academic performance in Business and Economics. These are available or online or at the Centre.

Visit the CELT site www.fbe.unimelb.edu.au/celt to learn more and get involved.

Past Exams

There will be a specimen exam available towards the end of semester.

Past professional exams for CT5, together with solutions, can be found at http://www.actuaries.org.uk/students/pages/ct5-contingencies
Other Information

- Expectation sheets will be provided through the LMS.
- You are expected to attempt tutorial problems before tutorial classes.
- You must adhere to the Centre’s calculator policy for exams (which is the same as that for professional actuarial exams). Specifically, you may use only one of the following calculators:
  - Casio FX82 (with or without any suffix)
  - Casio FX83 (with or without any suffix)
  - Casio FX85 (with or without any suffix)
  - Sharp EL531 (with or without any suffix)
  - Texas Instruments BA II Plus (with or without any suffix)
  - Texas Instruments TI-30 (with or without any suffix)