ACST403

Actuarial Control Cycle 2

S2 Day 2018

Archive (Pre-2019) - Dept of Applied Finance and Actuarial Studies

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Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff
Unit Convenor
Maggie Lee
maggie.lee@mq.edu.au
Contact via iLearn discussion forum or during consultation hours in teaching weeks
TBA
Refer to iLearn

Lecturer
Bruce Edwards
Contact via in class or via the Discussion Forum

Administrator
Hong Xie
Contact via iLearn Dialogue (admin enquiries)

Angela Chow
angela.chow@mq.edu.au

Credit points
3

Prerequisites
ACST402

Corequisites

Co-badged status

Unit description
This unit, in conjunction with ACST402 Actuarial Control Cycle 1, develops and applies the actuarial principles and practices underlying the design, assessment, management and control of financial systems in the areas of life insurance, general insurance, and superannuation and other less traditional areas of actuarial practice. The two units together consider the process of actuarial and financial management including: product design; pricing; marketing; monitoring of experience; reserve setting; financing; solvency; determination and distribution of surplus; and its role in enterprise risk management. The overall control process is studied within the constraints imposed by the commercial environment and the actuarial professional code of conduct and standards. This includes a discussion of business ethics and issues of professionalism in actuarial practice. Students gaining a grade of credit or higher in all of ACST402, ACST403 and ACST404 are eligible for exemption from Part II of the professional exams of the Institute of Actuaries of Australia.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://www.mq.edu.au/study/calendar-of-dates

Learning Outcomes

On successful completion of this unit, you will be able to:

Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations

Apply a risk assessment framework to identify and assess the risks in a range of commercial situations

Apply the tests of professionalism

Apply relevant approaches and techniques to the valuation of liabilities

Measure and report emerging profits and/or costs

Measure, report, and manage solvency

Monitor and assess experience; understand how the management of the business should be responsive to the experience

Provide written and oral presentations, which may be either individual or group work

General Assessment Information

Details of assessment tasks will be provided on iLearn. Please check your announcements and discussion forum regularly (at least twice a week) for announcements about assessment tasks.

It is the responsibility of students to view their marks for each within session assessment on iLearn within 20 working days of posting. If there are any discrepancies, students must contact the unit convenor immediately. Failure to do so will mean that queries received after the release of final results regarding assessment marks (not including the final exam mark) will not be

addressed.

Assessment criteria for all assessment tasks will be provided on the unit iLearn site.

The Macquarie University units Actuarial Control Cycle 1, Actuarial Control Cycle 2, and Investment Management are accredited by the Actuaries Institute.

The Actuaries Institute sends external examiners to review the performance of borderline students and to verify that appropriate exemption standards have been maintained.

It is the responsibility of the student to apply to Macquarie University to recommend them to the Actuaries Institute for professional exemptions. For information about this process please refer to http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/exemptions_for_professional_examinations

Assessment Tasks

Name	Weighting	Hurdle	Due
Assessed Coursework	10%	No	Varies - see description
Case study / report	12%	No	9am Thursday 13 September
Presentation	8%	No	Wednesday 3 October
Final Examination	70%	No	University Exam Timetable

Assessed Coursework

Due: **Varies - see description**
Weighting: **10%**

Assessed Coursework includes Textbook Chapter Tasks (4%), Discussion Forum Contributions (3%), and Pop-up Quizzes (3%).

(a) Textbook Chapter Tasks (4%)

Description

Each textbook chapter task requires you to read a chapter of the textbook or a related reading and provide a one-page answer to a question based on the chapter's topic. They are due 9am (Sydney time) on most Monday mornings (see the Unit Schedule). The first chapter task will be due on Monday 6 August 2018 (Week 2). Only three of the six textbook chapter tasks will be marked and graded (and we don't specify which ones in advance).

Further details will be provided on the teaching website.

Submission

Textbook chapter tasks are submitted via the teaching website, and marks and feedback will be

returned via the teaching website.

Extensions/penalties

No extensions will be granted. Students who have not submitted the task prior to the deadline will be awarded a mark of 0 for the task, except for cases in which an application for Special Consideration is made and approved.

(b) Discussion Forum Postings (3%)

Students should contribute to the discussion forum by posting answers to discussion questions. Students must make at least 3 postings during the term. Students will earn 1 mark for each posting which satisfactorily engages with the topic (Postings which do not reflect much thought, such as "I agree with Tom" will not earn marks). They are due 11:59pm (Sydney time) on Sunday (see the Unit Schedule). The first discussion forum post will be due on Sunday 19 August 2018 (end of Week 3). Further information about this assessment task will be provided via iLearn.

Submission

Discussion contributions are submitted via the teaching website, and marks and feedback will be returned via the teaching website.

Extensions / penalties

No extensions will be granted. Students who have not submitted the task prior to the deadline will be awarded a mark of 0 for the task, except for cases in which an application for Special Consideration is made and approved.

(c) Class quizzes (3%)

Description

There will be four random quizzes held during class times. All four quizzes will be marked and a grade will be awarded based on the best three of these four quizzes. The timing of the quizzes will NOT be notified in advance.

Submission

Quizzes will be submitted during class time, and marks and feedback will be returned via the teaching website.

Extensions / penalties

No extensions will be granted. Students who do not submit the task (or are not in classes to complete the task) will be awarded a mark of 0 for that quiz. An application for Special Consideration can only be made and approved where the student has been unable to attend classes that lead to fewer than three of the four quizzes being submitted.

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- Provide written and oral presentations, which may be either individual or group work

Case study / report

Due: **9am Thursday 13 September**
Weighting: **12%**

Description

An individual, written, case-study report. It will be due 9am Thursday 13 September (Sydney time). Details will be provided on the teaching website.

Submission

Submission is via the teaching website, and marks and feedback will be returned via the teaching website.

Extension

No extensions will be granted.

Penalties

There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late (for example, 25 hours late in submission: 20% penalty). This penalty does not apply for cases in which an application for Special Consideration is made and approved. No submission will be accepted after solutions have been posted.

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Presentation

Due: **Wednesday 3 October**
Weighting: **8%**

Description

The presentation is an oral presentation to the class. Students may do an individual presentation, or may work in groups (maximum 3 people per group). Each student will be assessed with individual marks contributing to 8% of total assessment.

Details will be provided on the teaching website.

Submission

Presentations will be given in lecture classes. In order to facilitate scheduling, students will have to tell the unit administrator whether they wish to make an individual presentation, or work in a group via iLearn Survey. The schedule of presentation times will be posted on iLearn after students have registered.

Extension

No extensions will be granted.

Penalties

Students who do not complete the presentation on the scheduled date will be awarded a mark of 0 for the task, except for cases in which an application for Special Consideration is made and approved.

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Final Examination

Due: **University Exam Timetable**
Weighting: **70%**

Description

The final examination is a three-hour (plus 10 minute reading time) written examination.

Examination conditions:

Normal University examination rules apply.

Calculators will be allowed in the final examination but a clear indication of the steps involved in every calculation must be shown. Any machines that have a text-storage/retrieval capacity, specifically those with a full alphabet on the keyboard, are not allowed. Calculators may be checked at the commencement of the examination, and the make/model may be recorded.

Dictionaries are not permitted in the final exam.

You are permitted ONE A4 page of paper containing reference material printed on both sides. The material may be handwritten or typed. The page will not be returned to you at the end of the final examination. No other reference materials are allowed to be taken into the final exam.

You should ensure that your handwriting in the final examination is legible. Sections of work that are not legible will not be marked

Date and location of Examination

The Examination will be conducted during the University examination period. The examination timetable will be published on the University website later in the session. The exam timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in Final form approximately four weeks before the commencement of the examinations.

Extension

No extensions will be granted. The only exception to sitting the examination at the designated time is due to documented illness or unavoidable disruption. In these circumstances you may apply for Special Consideration - details are given in the Policies and Procedures section of this outline. If a supplementary examination is granted as a result of this process, the examination will be scheduled after the conclusion of the official examination period, and you must be available to sit the examination at the designated time.

On successful completion you will be able to:

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Delivery and Resources

Classes

The Actuarial Control Cycle 2 is a co-taught unit, available to ACST403, ACST732 and ACST832 students. Lectures are offered in three modes – campus classes (North Ryde), city classes (Sydney CBD) and distance education (students can be located anywhere).

Please refer to the University timetable at https://timetables.mq.edu.au/2018/ to find the times and locations of lectures for the campus classes.

We believe that the best way we can help you to master the Actuarial Control Cycle subject is not by giving traditional lectures where your role is basically to listen, think and take notes. We have planned the face-to-face classes to be like workshops: a mixture of short "micro-presentations", small group work, discussions involving the whole class, and individual activities. Most weeks, we will ask you to do some preparatory work - reading, research, writing or just thinking. If you want to get the most out of the classes, do the preparation, and get involved in the classroom work.

Downloadable lecture recordings

The University audio-visual team usually makes recordings of on-campus lectures. These will be available via iLearn (use the Echo360 tab on the right hand side of the home page). Since the classes in this unit are not traditional lectures but contain periods of group discussion, the recordings will contain some stretches of background noise which you will need to fast forward through.

Teaching staff

Maggie Lee is the unit convenor and will be taking five weeks of classes including supervising presentations. Maggie can be contacted via Dialogue on the website, or during her consultation hours.

Bruce Edwards will be conducting other classes and supervision of presentations. Bruce is an industry practitioner with a wide range of knowledge across many areas in which actuaries practise. Outside of classes, the forum for interaction with Bruce will be the website Discussion

forums.

Hong Xie is the teaching administrator, and can deal with any administrative queries related to the unit. Hong can be contacted via Dialogue on the website.

Required and Recommended Texts and/or Materials

Textbook

Required texts : Bellis, C, Lyon, R, Klugman, S & Shepherd, J (2010) *Understanding Actuarial Management: the actuarial control cycle*, 2nd edition, Institute of Actuaries of Australia.

The textbook can be purchased from the Actuaries Institute, at:

http://www.actuaries.asn.au/knowledge-bank/book-shop?id=8

Copies of the textbook are available in the Special Reserve section of the library.

Learning Guide

There is a Learning Guide for each section of work. You should read the Learning Guide before the lectures, and bring a copy with you to classes.

Additional readings will be posted on iLearn.

Technology Used and Required

In this unit, you will need to have access to and to be able to use software to produce overhead slides, software to produce pdf documents, and word-processing software to produce reports.

Unit web page

Course material is available on the online learning management system (iLearn).

The teaching website is integral to this course unit. Passive involvement in this unit greatly reduces the likelihood of achieving the exemption standard of understanding. Interaction with other students and with teachers is very important, and the website is the forum for that interaction.

You will need to be accessing the website regularly to see announcements, read postings and stay informed - at least every couple of days. This is your responsibility and we cannot make any allowances for students who miss important information due to not checking the website regularly.

The website entry page is at: http://ilearn.mq.edu.au

Assumed knowledge

We assume that you have acquired the knowledge and skills included in the syllabi for the Part I (Core technical) subjects and Actuarial Control Cycle I.

Teaching and Learning Activities

The unit is taught as set out in the Classes section. The Unit Schedule sets out the assessment and the topics covered in each week of the session.

Teaching and Learning Strategy

You should prepare for each lecture by reading the relevant chapter of the textbook, the Learning Guide, and any other readings posted on iLearn. We encourage all students to actively participate in class discussions and group work.

Exemptions

The Macquarie University units ACST402/731/831/831 External (Control Cycle 1), ACST403/732/832/832 External (Control Cycle 2) and ACST404/771/871/871 External together count for exemption from the Actuaries Institute Part II subject. You will be recommended for exemption from Part II if you attain grades of Credit or better in these three units. If you attain a Pass in one or more of these units, then the exemption will be recommended if and only if a Standardised Numerical Grade (SNG) of at least 60 is achieved in all three units, and the average SNG is at least 65. For students who have completed part of Part II at a different university, each case is considered individually based on the exemption requirements at those universities.

It is the responsibility of the student to apply to Macquarie University to recommend them to the Actuaries Institute for professional exemptions. For information about this process and links to relevant forms, see:

http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/exemptions_for_professional_examinations

Unit Schedule

Week	Week beginning	Topic	Lecturer	UAM Chapter	Assessment task	Notes
1	30-Jul	Valuation of Liabilities	BE	12		
2	06-Aug	Measuring Profits	BE	16	TCT1	
3	13-Aug	Professionalism	ML	3	TCT2, Discussion contribution 1	
4	20-Aug	Data analytics/Big Data	ML			
5	27-Aug	Solvency	ML	15	TCT3	
6	03-Sep	Managing an Insolvent Insurer Regal / Occidental Case study	BE	15	TCT4	
7	10-Sep	Stress Testing	BE		Discussion contribution 2, Case study/report	

Break	17-Sep					
Break	24-Sep					
8	01-Oct	Public Holiday October 1 Class Presentations	BE, ML, SG		Presentation	No Monday class due to Labour Day
9	08-Oct	Monitoring Experience 1	BE	17	TCT5	
10	15-Oct	Monitoring Experience 2	ML	17		
11	22-Oct	Responding to Experience 1	BE	18	TCT6, Discussion contribution 3	
12	29-Oct	Responding to Experience 2	BE	18		
13	05-Nov	Revision	ML			

Policies and Procedures

Macquarie University policies and procedures are accessible from Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- Academic Appeals Policy
- Academic Integrity Policy
- Academic Progression Policy
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)*

Undergraduate students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/study/getting-started/student-conduct

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in eStudent. For more information visit ask.mq.edu.au.

Supplementary exams

Information regarding supplementary exams, including dates, is available at: http://www.businessandeconomics.mq.edu.au/current_students/undergraduate/how_do_i/disruption_to_studies

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- Workshops
- StudyWise
- Academic Integrity Module for Students
- Ask a Learning Adviser

Student Services and Support

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the Acceptable Use of IT Resources Policy.

The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations
- Apply a risk assessment framework to identify and assess the risks in a range of commercial situations
- Apply the tests of professionalism
- Apply relevant approaches and techniques to the valuation of liabilities
- Measure and report emerging profits and/or costs
- Measure, report, and manage solvency
- Monitor and assess experience; understand how the management of the business should be responsive to the experience
- Provide written and oral presentations, which may be either individual or group work

Assessment tasks

- Assessed Coursework
- Case study / report
- Presentation
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations
- Apply a risk assessment framework to identify and assess the risks in a range of commercial situations
- Apply the tests of professionalism
- Apply relevant approaches and techniques to the valuation of liabilities
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Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations
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Assessment tasks

- Assessed Coursework
- Case study / report
- Presentation
- Final Examination

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations
- Apply a risk assessment framework to identify and assess the risks in a range of commercial situations
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Changes from Previous Offering

The learning objectives, class format and text are all the same as in the last offering. The Learning Guides, readings, lecture slides and lecture recordings are updated each year.

The individual assessments are new each year and the overall assessment structure is also somewhat different to the last offering. There has also been a change in the order in which topics are covered since the last offering, and a change to the unit convenor.

Research

Research and Practice

This units uses research in several ways:

- The unit uses research by Macquarie University researchers (e.g. current and former Macquarie staff members are editors and authors of the textbook and other readings);
- This unit uses research from external sources (references will be provided);
- This unit gives you practice in applying research findings in your assignments.

Changes since First Published

Date	Description
23/07/2018	Changed due date for discussion forum to be Sunday 11:59pm instead of Monday 9am