

**ACST832** 

# **Actuarial Control Cycle 2**

S2 External 2017

Dept of Applied Finance and Actuarial Studies

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#### Disclaimer

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# **General Information**

Unit convenor and teaching staff
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Contact via shauna.ferris@mq.edu.au
e4a 617
by appointment - send an email to Shauna to arrange a meeting
Lecturer
Peter Carroll
Contact via Please contact in class or via the Discussion Forum
Lecturer
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Administrator
Hong Xie
Contact via please contact via iLearn Dialogue (admin enquiries)
contact via please contact via iLearn Dialogue (admin enquines)
Credit points
4

Prerequisites ACST831

Corequisites

Co-badged status

Unit description

This unit, in conjunction with ACST831, 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, as well as other less traditional areas of actuarial practice. The two units consider the process of actuarial and financial management including: product design, pricing, marketing, monitoring of experience, reserving, financing, solvency, surplus, and enterprise risk management. The commercial environment and professionalism are discussed. Students gaining a credit or higher in this unit will satisfy part of the requirements for exemption from Part IIA 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 <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **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 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 Apply an ethical framework (including the Professional Code of Conduct) to issues in the financial services industry

# **General Assessment Information**

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

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

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.

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	8%	No	Weeks 2 to 12 (see Schedule)
Written Report	10%	No	4 pm Monday October 9
Major Assignment	12%	No	4 pm Monday October 23
Postgraduate Students Task	0%	No	4 pm Monday November 6
Final Examination	70%	No	University Exam Timetable

# Assessed Coursework

#### Due: Weeks 2 to 12 (see Schedule) Weighting: 8%

Assessed Coursework includes Textbook Chapter Tasks (4%) and Discussion Forum Contributions (4%),

#### (a) Textbook Chapter Tasks (4%)

Submission: You must submit textbook chapter tasks from time to time during the term. Submit electronically via iLearn before 4 pm on Monday (Sydney time)

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. A sample of these chapter tasks will be marked - we will not tell you which textbook chapter tasks will be marked.

Please use the first chapter tasks as an indicator of your progress in the unit. If you have difficulties in satisfactorily completing these tasks, please talk to the Unit Convenor and consider withdrawing from the unit before the census date on Friday of week 4.

as per the schedule on iLearn.

Extensions: 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 disruptions to studies is made and approved.

#### (b) Discussion Forum Postings (4%)

Students should contribute to the discussion forum by posting answers to discussion questions. Students must make at least 4 postings during the term. Students will earn 1 mark for each satisfactory posting (Postings which do not reflect much thought, such as "I agree with Tom" will not earn marks). 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 Disruption to Studies is made and approved.

On successful completion 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 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

# Written Report

# Due: 4 pm Monday October 9

Weighting: 10%

Description Students will be asked to write a report on a control cycle topic. Further information will be posted on iLearn.

Submission Submit via iLearn before 4pm on Monday October 9 (Sydney time).

Extension No extensions will be granted. Students who do not complete the task by the deadline will be awarded a mark of 0 for the task, except for cases in which an application for Disruption to Studies is made and approved.

On successful completion 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 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

# Major Assignment

#### Due: 4 pm Monday October 23

Weighting: 12%

Submission: Submit electronically via iLearn before 4 pm Monday October 23

What is required : 1750 word report.

**Extensions:** No extensions will be granted. 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 disruption of studies is made and approved. No submission will be accepted after solutions have been posted.

On successful completion 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 relevant approaches and techniques to the valuation of liabilities
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- Measure, report, and manage Solvency
- Monitor and Assess Experience; understand how the management of the business should be responsive to the experience

### Postgraduate Students Task

### Due: 4 pm Monday November 6

Weighting: 0%

This assignment is compulsory for ACST832 (Postgraduate) students. ACST832 students cannot pass the unit unless they complete this task satisfactorily. The assignment is marked on a pass/ fail basis.

ACST403 (Undergraduate) students are NOT required to complete this task.

Submission: submit via iLearn before 4 pm November 6

Extensions: 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 disruptions to studies is made and approved.

On successful completion you will be able to:

• Apply an ethical framework (including the Professional Code of Conduct) to issues in the financial services industry

## **Final Examination**

# Due: University Exam Timetable Weighting: 70%

Examination conditions: The exam will be 3 hours long, with ten minutes reading time.

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-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 term. 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.

On successful completion 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 relevant approaches and techniques to the valuation of liabilities
- · Measure and report emerging profits and/or costs
- Measure, report, and manage Solvency

# **Delivery and Resources**

#### Classes

The Actuarial Control Cycle 2 is a co-taught unit, available to both ACST403 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/2017/ to find the times and locations of lectures for the campus classes.

Evening classes are held on Tuesday evenings from 5:30 to 8:30 at the Portside Centre, 207 Kent Street.

#### **Required and Recommended Texts and/or Materials**

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.

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

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.

#### 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).

Some additional recordings will be posted on iLearn in MP4 format.

#### Unit web page

The web page for this unit can be accessed via the "login" button on http://ilearn.mq.edu.au

You should check the website regularly (at least twice a week) to read announcements posted by University staff. Announcements are also posted to your University email account, and you should check your email regularly. This is your responsibility and we cannot make allowances for students who miss important information.

#### **Teaching and Learning Strategy**

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

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.

# **Unit Schedule**

Week		Торіс	Lecturer
1		Valuation of Liabilities	Bruce Edwards
2		Measuring Profits	Bruce Edwards
3		Professionalism	Peter Carroll
4		Solvency 1	Shauna Ferris
5		Solvency 2	
6		Managing an Insolvent Insurer Regal / Occidental Case study	Bruce Edwards
7		Risk Management	Bruce Edwards
Break	September 18		
Break	September 25		
8		Public Holiday October 2 Class Presentations	Bruce Edwards, Peter Carroll, Shauna Ferris
9		Monitoring Experience 1	Shauna Ferris
10		Monitoring Experience 2	Bruce Edwards
11		Responding to Experience 1	Bruce Edwards
12		Responding to Experience 2	Bruce Edwards
13		Revision	Shauna Ferris

# **Policies and Procedures**

Macquarie University policies and procedures are accessible from <u>Policy Central</u>. Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic\_honesty/policy.html

Assessment Policy http://mq.edu.au/policy/docs/assessment/policy\_2016.html

Grade Appeal Policy http://mq.edu.au/policy/docs/gradeappeal/policy.html

Complaint Management Procedure for Students and Members of the Public <u>http://www.mq.edu.a</u> u/policy/docs/complaint\_management/procedure.html

Disruption to Studies Policy (in effect until Dec 4th, 2017): <u>http://www.mq.edu.au/policy/docs/disr</u>uption\_studies/policy.html

Special Consideration Policy (in effect from Dec 4th, 2017): <u>https://staff.mq.edu.au/work/strategy-</u>planning-and-governance/university-policies-and-procedures/policies/special-consideration

In addition, a number of other policies can be found in the <u>Learning and Teaching Category</u> of Policy Central.

#### **Student Code of Conduct**

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <a href="https://students.mq.edu.au/support/student\_conduct/">https://students.mq.edu.au/support/student\_conduct/</a>

#### **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 <u>eStudent</u>. For more information visit <u>ask.m</u> <u>q.edu.au</u>.

#### 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 <u>http://stu</u> dents.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 <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.

# **Graduate Capabilities**

# PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

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 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
- Apply an ethical framework (including the Professional Code of Conduct) to issues in the financial services industry

### Assessment tasks

- Assessed Coursework
- Written Report
- Major Assignment

- Postgraduate Students Task
- Final Examination

# PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

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 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

#### Assessment tasks

- Assessed Coursework
- Written Report
- Major Assignment
- Postgraduate Students Task
- Final Examination

# PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

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 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

#### Assessment tasks

- Assessed Coursework
- Written Report
- Major Assignment
- Postgraduate Students Task
- Final Examination

# PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

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 relevant approaches and techniques to the valuation of liabilities
- · Measure and report emerging profits and/or costs
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#### **Assessment tasks**

- Assessed Coursework
- Written Report
- Major Assignment

- Postgraduate Students Task
- Final Examination

# **Changes from Previous Offering**

Learning Guides, readings, and lecture overheads are regularly updated to reflect developments in financial markets and actuarial practice.

# Research

# RESEARCH

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.