



# ACST832

## Actuarial Control Cycle 2

S2 External 2016

*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

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e4a 617

by appointment - send an email to Shauna to arrange a meeting

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Administrator

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Hong Xie

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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 <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 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

## General Assessment Information

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.businessandconomics.mq.edu.au/current\\_students/undergraduate/how\\_do\\_i/exemptions\\_for\\_professional\\_examinations](http://www.businessandconomics.mq.edu.au/current_students/undergraduate/how_do_i/exemptions_for_professional_examinations)

## Assessment Tasks

Name	Weighting	Due
<u>Assessed Coursework</u>	5%	Weeks 2 to 12 (see Schedule)
<u>Discussion Board Contribution</u>	5%	See Instructions
<u>Report</u>	5%	Monday October 3
<u>Major Assignment</u>	15%	Monday Sept 19 midnight
<u>Final Examination</u>	70%	University Exam Timetable

## Assessed Coursework

Due: **Weeks 2 to 12 (see Schedule)**

Weighting: **5%**

### Textbook Chapter Tasks

Submission: You must submit textbook chapter tasks from time to time during the term. Submit electronically via iLearn before 9 am on Monday (Sydney time) as per the schedule on iLearn.

What is required to complete the unit satisfactorily: 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.

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.

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.

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## Discussion Board Contribution

Due: **See Instructions**

Weighting: **5%**

Submission of written material: See instructions on iLearn. Students are expected to make regular contributions to the Discussion Forums during term. Marks will be awarded for both quantity and quality of contributions.

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## Report

Due: **Monday October 3**

Weighting: **5%**

Submission: Submit electronically via iLearn before midnight on Monday October 3. [This assessment task replaces the presentation preparation and oral presentation which is completed by the internal students].

What is required: 1000 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:

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- Apply a Risk Assessment Framework to identify and assess the risks in a range of commercial situations

## Major Assignment

Due: **Monday Sept 19 midnight**

Weighting: **15%**

Submission: Submit electronically via iLearn before midnight on Monday September 19

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:

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## 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, and no 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.

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## **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/2016/> to look up the times and locations for lectures for on-campus students.

Evening classes are held at the Portside Centre, 207 Kent Street at 5:30 to 8:30 pm on Tuesdays.

### **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 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		Topic	Lecturer
1		Professionalism	Peter Carroll
2		Valuing Liabilities	Bruce Edwards



3		Profit	Bruce Edwards
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 19	Assignment Due; Presentation Registration due	
Break	September 26		
8		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 [Policy Central](#). 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](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

**New Assessment Policy in effect from Session 2 2016** [http://mq.edu.au/policy/docs/assessment/policy\\_2016.html](http://mq.edu.au/policy/docs/assessment/policy_2016.html). For more information visit [http://students.mq.edu.au/events/2016/07/19/new\\_assessment\\_policy\\_in\\_place\\_from\\_session\\_2/](http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/)

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

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

Complaint Management Procedure for Students and Members of the Public [http://www.mq.edu.au/policy/docs/complaint\\_management/procedure.html](http://www.mq.edu.au/policy/docs/complaint_management/procedure.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special*

### *Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of 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/support/student\\_conduct/](https://students.mq.edu.au/support/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](http://ask.mq.edu.au).

### Supplementary Exams

*Further information regarding supplementary exams, including dates, is available here*

[http://www.businessandconomics.mq.edu.au/current\\_students/undergraduate/how\\_do\\_i/specia/consideration](http://www.businessandconomics.mq.edu.au/current_students/undergraduate/how_do_i/specia/consideration)

## 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](http://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](http://ask.mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/](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**

### **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
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- Measure and report emerging profits and/or costs
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- Monitor and Assess Experience; understand how the management of the business should be responsive to the experience

#### **Assessment tasks**

- Assessed Coursework
- Discussion Board Contribution
- Report
- Major Assignment
- 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
- Discussion Board Contribution
- Report
- Major Assignment
- 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
- Discussion Board Contribution

- Report
- Major Assignment
- 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:

### **Assessment task**

- Discussion Board Contribution

## **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 unit 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.