# ACST7031

## Actuarial Control Cycle 1

Session 1, Weekday attendance, North Ryde 2020

*Department of Actuarial Studies and Business Analytics*

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# General Information

Unit convenor and teaching staff
Unit Convenor
Simon Guthrie
Contact via Contact via iLearn Dialogue or discussion forums
4 Eastern Rd 739
Tuesday 1-3pm during teaching weeks

Lecturer
Bruce Edwards
Contact via Contact via iLearn discussion forum or in class

Teaching Assistant
Hong Xie
Contact via Contact via iLearn Dialogue (admin enquiries)

Credit points
10

Prerequisites
Admission to MRes

Corequisites

Co-badged status

Unit description
This unit, in conjunction with ACST7032, 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, 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 along with research in actuarial science as well as 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 Credit average in both ACST7031 (or ACST731) and ACST7032 (or ACST732) (minimum mark of 60 on both units) will satisfy the requirements for exemption from the Actuarial Control Cycle subject of the Actuary program of the Actuaries Institute.

## 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:

**ULO1:** Discuss and apply an Actuarial Control Cycle in a variety of practical commercial situations.

**ULO2:** Relate the main features of actuarial control cycle within the general environment to medium and long-term commercial decisions.

**ULO3:** Analyse the main features and risks of financial products and contracts from the point of view of consumers and providers.

**ULO4:** Demonstrate an understanding of enterprise risk management and apply a risk assessment framework to idenfity and assess the risks in a range of situations.

**ULO5:** Discuss and apply the process of product design

**ULO6:** Critically appraise research and/or your own learning in relation to the Actuarial Control Cycle

# Assessment Tasks

**Coronavirus (COVID-19) Update**

Assessment details are no longer provided here as a result of changes due to the Coronavirus (COVID-19) pandemic.

Students should consult iLearn for revised unit information.

Find out more about the Coronavirus (COVID-19) and potential impacts on staff and students

# 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.

**Late submission**

For individual assessment tasks worth 10% or less - 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.

For individual assessment tasks worth more than 10% - 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 special consideration is made and approved. No submission will be accepted after solutions have been posted.

# Delivery and Resources

**Coronavirus (COVID-19) Update**

Any references to on-campus delivery below may no longer be relevant due to COVID-19.

Please check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

### Classes

ACST7031 is offered via classes on campus (Macquarie University). Students share lecture classes and a common teaching website with the units ACST4002 and ACST8031. ACST8031 is also offered via classes in the Sydney CBD and via distance education throughout the world.

### Style of 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 "micropresentations", 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

In all weeks, standard recordings of campus lectures using the University's lecture recording facility (ECHO360) will be available. The recordings capture audio and screenshot. 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. To access the recordings for all weeks, click on the ECHO360 link on the right hand side of the webpage, then select the relevant lecture recording date, then click Play.

### Timetable

The timetable for classes can be found on the Macquarie University website at: http://www.timetables.mq.edu.au

Alterations to the class times or locations will be advised in class and on the teaching website.

### Teaching staff

Simon Guthrie is the unit convenor and will be taking four weeks of classes including supervising presentations. Simon can be contacted via Dialogue on the website, or during his 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 practice. 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.

**Assumed knowledge**

We assume from the start of the Actuarial Control Cycle that you have acquired the knowledge and skills in subjects CT1 to CT8 of Part I of the Actuaries Institute education program.

**Required and recommended texts and materials**

**Textbook**

There is one textbook for this unit, referred to here and elsewhere as UAM: Bellis, C., Lyon, R., Klugman, S and 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

You should buy the book immediately, if you haven't already, as assessment tasks based on the book are due at the beginning of the second week of classes. Other useful articles will be set out at the beginning of each Learning Guide, and made available on the teaching website.

**Learning Guide**

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

**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, .pdf documents, and word-processing software to produce reports.

**Teaching Website**

Course material is available on the online learning management system (iLearn). The teaching website is integral to this 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

**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 semester.

**Exemptions**

The Macquarie University units ACST4002/7031/8031 (Control Cycle 1) and ACST4003/7032/8032 (Control Cycle 2) together will satisfy the requirements for exemption from the Actuarial Control Cycle subject of the Actuary program of the Actuaries Institute. You will be recommended for exemption if you attain grades of Credit or better in these two units. If you attain a Pass in one 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 both units, and the average SNG is at least 65. For students who have completed part of Actuarial Control Cycle 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 please contact Hong Xie via iLearn.

# Unit Schedule

**Coronavirus (COVID-19) Update**

The unit schedule/topics and any references to on-campus delivery below may no longer be relevant due to COVID-19. Please consult iLearn for latest details, and check here for updated delivery information: https://ask.mq.edu.au/account/pub/display/unit_status

| Week | Week beginning | Topic | Lecturer | UAM Chapter | Assessment task | Notes |
|---|---|---|---|---|---|---|
| 1 | 24-Feb | Meeting Consumers' Needs | SG | 4 | - | |
| 2 | 2-Mar | Context of Actuarial Work | BE | 5, 14 (part) | TCT1 | |
| 3 | 9-Mar | Financial Services Overview | BE | Readings | TCT2, Discussion contribution 1 | |
| 4 | 16-Mar | Product Development | BE | 8 | TCT3 | |
| 5 | 23-Mar | ERM | SG | 2 | TCT4 | |
| 6 | 30-Mar | Applying Risk Management | BE | 6 | TCT5, Discussion contribution 2 | |
| 7 | 6-Apr | Presentations | - | - | Presentation | |
| Study break | 13-Apr | - | - | - | - | |
| Study break | 20-Apr | - | - | - | - | |
| 8 | 27-Apr | Modelling | SG | 9,10 | TCT6, Research Report | |
| 9 | 4-May | Capital 1 | SG | 11 | TCT7, Discussion contribution 3 | |
| 10 | 11-May | Capital 2 | BE | 11 | - | |
| 11 | 18-May | Pricing 1 | BE | 13 | TCT8 | |
| 12 | 25-May | Pricing 2 | BE | 13 | - | |
| 13 | 1-Jun | Revision | BE | - | - | |

# 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.)*

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 published on platform other than eStudent, (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA student contact globalmba.support@mq.edu.au

## 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 help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- Academic Integrity Module

The Library provides online and face to face support to help you find and use relevant information resources.

- Subject and Research Guides
- Ask a Librarian

## 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

If you are a Global MBA student contact globalmba.support@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.

# Changes from Previous Offering

Topic "Regulation" has been removed and replaced with "Financial Services Overview" in response to changes to the Actuaries Institute Syllabus.