

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

ACST400/831/831X
Actuarial Control Cycle 1

Semester 1, 2010

Department of Actuarial Studies

MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT OUTLINE

Year and Semester: Semester 1, 2010

Unit convenor: Associate Professor Leonie Tickle

Prerequisites: Completion of a degree in Actuarial Studies (or the equivalent in terms of either the Part I subjects of the Institute of Actuaries of Australia or other routes)

Students in this unit should read this unit outline carefully at the start of semester. It contains important information about the unit. If anything in it is unclear, please consult the unit convenor.

ABOUT THIS UNIT

Credit Points 4

Unit Description

The overall aim of the Control Cycle subject (ie. this unit ACC 1 in conjunction with ACC 2) is for you to understand the basic principles and concepts governing the actuarial management of financial products, services and schemes across a range of practice areas (eg. insurance, pensions, superannuation, finance, friendly societies), government and other environments, so that you will be able to apply those principles and concepts to a wide range of problems and issues that you may encounter in professional practice.

Unit Rationale

The two units together consider the process of actuarial and financial management, including product design, pricing, marketing, monitoring of experience, reserve setting, financing, solvency, and determination and distribution of surplus. The overall control process is studied within the constraints imposed by the commercial environment and the actuarial professional code of conduct and standards, and includes a discussion of business ethics and issues of professionalism in actuarial practice.

You will not be expected to show the same degree of skill and judgement as a qualified actuary. Together with ACC 2, this course unit aims to help you start moving towards that level of professional capability by understanding the “big picture” of actuarial practice – how the mathematical and statistical techniques for actuarial functions like pricing and reserving fit into the financial management of products, services, funds and organisations.

Macquarie University’s units Actuarial Control Cycle 1 and 2 are accredited by the Institute of Actuaries of Australia as meeting its standards for the purposes of exemption from Part II of its actuarial qualification program in 2010¹.

The Institute of Actuaries of Australia’s Part II Syllabus for the Actuarial Control Cycle can be found at: <http://www.actuaries.asn.au/Education/Courses/PartTwo>.

¹ Please also note that as of 1 January 2010 the requirements for achieving Associate status (AIAA) have changed. See the following website for information: <http://www.actuaries.asn.au/Designations.htm>

TEACHING STAFF

Team Member	Team Role	Room	Telephone	Consultation
Leonie Tickle	Unit Convenor / Lecturer	E4A 608	9850 8567	You can contact each team member via the ACC 1 web site
Andrew Geue	Lecturer	-	-	
Bruce Edwards	Lecturer	-	-	
Hong Xie	Unit Administrator	E4A 621	9850 4776	

CLASSES

Enrolment streams

ACC 1 is offered in three modes – campus classes (North Ryde), city classes (Sydney CBD) and distance education (students can be located anywhere).

Face-to-face classes (Campus and City)

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.

Since our classes are not going to be traditional lectures, they will not be recorded using the University’s iLecture facility (which can be well suited to lectures but not to workshops, discussions and group work). Scheduled weekly face-to-face classes are:

Enrolment stream	Day	Time	Location
Campus class	Mondays	2.00-4.00pm	E7B T3
	Wednesdays	2.00-4.00pm	C5C T1
City class	Tuesdays	5.30-8.30pm	Portside Centre Level 5, 207 Kent Street, Sydney

Alterations to the class times or locations will be advised in class and on the ACC 1 web site.

Distance education class

If you have enrolled for distance education mode (ACST831X) you will not be attending face-to-face classes (usually because you don’t live in Sydney!). You will have access to all materials from the face-to-face classes (slides, handouts, exercises, etc), and the same discussions and other activities, via the ACC 1 web site.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Textbook

There is one textbook for ACC 1, referred to here and elsewhere in this unit as UAM. The second edition of this book is in the final stages of publication and will be used in 2010 for the first time.

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

The IAAust are releasing some chapters of the book early to students, on the condition that students will not copy these chapters or forward them to anyone else, and will purchase the book when it becomes available. Please note that these early chapters may be in draft form and may not be fully complete or typeset.

Other useful articles will be set out at the beginning of each Learning Guide, and made available on the ACC 1 web site.

Learning Guide

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

UNIT WEB PAGE

The ACC 1 web site (using Blackboard) is integral to this course unit, whether you are a distance education student or in a face-to-face class. Passive involvement in ACC 1 greatly reduces the likelihood of achieving the exemption standard of understanding. Interaction with other students and with teachers is very important, and the web site is the forum for that interaction.

You will need to be accessing the web site regularly as well as checking *Announcements* and *Discussions* in the Course Tools menu – we recommend at least every couple of days. The ACC 1 web site entry page is at: <http://learn.mq.edu.au>.

You will need a web browser. It is recommended that you use one of the following: Netscape 7.2; Microsoft Internet Explorer 6.0 or 7; AOL 9.0; Mozilla 1.7x or Firefox 1.0x, 1.5x or 2.0.

Before using the ACC 1 Web site, read and make sure you understand the document called “*Security Policy and Rules Governing the Use of the Computing and Communications Facilities at Macquarie University*” which is available at: <http://www.ocs.mq.edu.au/POLICIES/mqrules.html>.

ASSUMED KNOWLEDGE AND SKILLS

We assume from the start of ACC 1 that you have learned the knowledge and skills developed in Subjects CT1 to CT8 of Part I of the Institute of Actuaries of Australia education program.

LEARNING OBJECTIVES AND OUTCOMES

The learning objectives of this unit are summarised at the start of each Learning Guide covering the topic for a Week. You should revise these after each week to ensure that you understand them.

In addition to the discipline-based learning objectives, academic programs at Macquarie seek to develop students’ generic skills in a range of areas including written and oral communication, critical analysis, problem solving, and creative thinking.

TEACHING AND LEARNING STRATEGY

The unit is taught as set out in the Classes section for face to face classes and distance students. The timetable at the end of this Unit Outline sets out the topics covered in each week of the Semester.

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

Assessment tasks

Task	Weighting	Brief outline
Textbook tasks	5%	Complete a range of tasks (roughly one for each relevant chapter of UAM), some of which will be graded
Assignment 1	15%	Prepare a report on a topic to be advised
Assignment 2	5%	Prepare slides and a handout executive summary for a presentation
Presentation (campus and city classes only)	5%	Give an oral presentation using the material prepared for Assignment 2
Discussion contribution (distance students only)	5%	Contribute to our website discussion topics and then nominate your best contributions for assessment
Reflective writing task	-	Write about your experience of learning in this subject (to be graded Satisfactory or Not Satisfactory)
Final exam	70%	A conventional 3-hour written exam

Full details of each assessment task, including submission details, will be given on the ACC 1 website.

The submission dates for the assessment tasks will be spread over the semester, so that you can plan your work accordingly. In order to achieve a passing grade for the subject you must have a satisfactory performance on each assessment task, including the Reflective writing task.

Final exam

The final exam will be held on a date to be announced by Macquarie University during the period 9 June to 25 June. The University's exam timetable is expected to 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, from:

<http://www.timetables.mq.edu.au/exam>

Local (ie. Sydney-based) students are expected to present themselves for the examination at the time and place designated on the University's exam timetable.

Distance students (outside of Sydney) must contact Hong Xie to organise (and confirm) the location and supervision for the final examination. If these students do not confirm their exam city by the announced due date, they are at risk of not having their exam location organised.

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.

GRADING YOUR LEARNING IN ACC 1

Macquarie University uses the grades HD (High Distinction), D (Distinction), CR (Credit), P (Pass), PC (Pass Conceded) and F (Fail) for grading the achievements of students in units of study. In this subject, your grade will be determined by how well you show you understand and can apply and explain the basic principles and concepts covered. P represents the lowest (basic) level of understanding, CR a higher level of understanding than that for P, D a higher level of understanding than CR, and HD the highest level of understanding.

Grading in this subject is NOT simply a matter of adding up the marks you gain for each of the assessment tasks. Your marks are taken as an initial indicator of the quality of your understanding, but they do not automatically determine your grade. Grading ultimately is based on the quality and consistency of the understanding you demonstrate, not on how many marks you can accumulate.

The following table is a guide to the level of understanding required in ACC 1 for each grade:

Grade	Level of understanding represented by that grade
HD	As for grade D, plus: <ul style="list-style-type: none"> • Able to recognise & explain the application of actuarial principles to types of problem not seen before • Able to apply basic principles/concepts to scenarios widely different from the familiar
D	As for grade CR, plus: <ul style="list-style-type: none"> • Able to apply basic principles/concepts to problem scenarios that differ significantly from the standard or familiar • Able to explain actuarial principles/concepts in clear, simple, non-technical language
CR	As for grade P, plus: <ul style="list-style-type: none"> • Able to apply basic principles/concepts to problem scenarios that differ slightly from the standard or familiar • Able to distinguish the more important from the less important aspects of the context in a given actuarial problem scenario, and give reasons <ul style="list-style-type: none"> • Able to recognise and explain professional issues arising in actuarial work
P	<ul style="list-style-type: none"> • Able to state clearly basic actuarial principles/concepts • Able to apply basic principles/concepts to standard or familiar problem scenarios • Able to explain basic principles/concepts of actuarial work
PC	<ul style="list-style-type: none"> • Inconsistent and scattered evidence of P level understanding, but insufficient to suggest reasonable likelihood of successful learning in ACST401/832.
F	<ul style="list-style-type: none"> • Little evidence of achieving P level understanding

SPECIAL CONSIDERATION FOR ASSESSMENTS AND EXAMS

If illness or unavoidable disruption affects your ability to submit an assessment task or sit the exam, you should read the information at

http://www.businessandconomics.mq.edu.au/for/new_and_current_students/undergraduate/admin_central/special_consideration

immediately. Allowances may be made where a formal application for Special Consideration is approved. For your application to be considered, you must ensure that you meet the requirements specified, including providing a Professional Authority Form for applications based on medical grounds.

The only exception to sitting an examination at the designated time is where an application for Special Consideration due to documented illness or unavoidable disruption is approved. By submitting a request for special consideration you are agreeing to be available to sit a Supplementary Examination if required. If a Supplementary Examination is granted as a result of the Special Consideration process then

- The examination will be scheduled after the conclusion of the official examination period.
- You do not have the right to request an alternative time, unless the scheduled time clashes with another Macquarie University supplementary exam that you are required to attend.
- Your performance in the Supplementary Examination replaces your performance in the original examination (if any). You do NOT have the right to subsequently request that your result be based on the original examination rather than the Supplementary Examination.
- If you fail to attend the Supplementary Examination you will be awarded the grade of “Fail–Absent”.

EXAM VIEWING AND GRADE APPEALS

First semester results are scheduled to be released on 13 July. Following the release of the results, some students ask to see their exam paper. You will need to view the FBE web site at

<http://businessandconomics.mq.edu.au/>

immediately after the results are released to determine how to request to view your paper. There will be a very limited time to make this request, and this must be done through the formal process rather than by a request to the unit convenor.

Please note that marks may not be recorded on exam scripts (eg. the marks and marker notes / comments may be recorded on separate marking pages or in detailed spreadsheets, which are not provided to individual students).

IAAUST EXEMPTIONS

Macquarie University units ACST400/831/831X and ACST401/832/832X (ie ACC 1 and ACC 2) together count for exemption from The Institute of Actuaries of Australia’s Part II subject “The Actuarial Control Cycle”.

You will be recommended for exemption from Part II if you attain grades of Credit or better in the two Actuarial Control Cycle units. If you attain a Credit or better in one of the units and only obtain a Pass in the other, then the exemption will be recommended if and only if an SNG of at least 60 is achieved in both units and the average SNG is at least 65.

For students who have completed Control Cycle 2 at a different University, each case is considered individually. We may discuss your results with the other university, and under Privacy rules, we will require your prior written permission to do this.

If you have completed Control Cycle 2 previously at a university other than Macquarie, please contact Hong Xie within the first two weeks of the semester.

PLAGIARISM

In order to maintain the high standards of a Macquarie University degree, the University uses a strict and progressive approach to plagiarism.

The University defines plagiarism in its rules: "Plagiarism involves using the work of another person and presenting it as one's own." Plagiarism is a serious breach of the University's rules and carries significant penalties. You must read the University's practices and procedures on plagiarism. These can be found in the Handbook of Undergraduate Studies or on the web at:

<http://www.student.mq.edu.au/plagiarism/>

The policies and procedures explain what plagiarism is, how to avoid it, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee.

The University's policy on plagiarism applies to all work you submit for assessment in this subject (including the final exam).

Your submitted written work (assignments and textbook tasks) may be compared to work of your classmates, previous students from Macquarie and other universities, and with material available on the internet, using detection software licensed to the University.

STUDENT SUPPORT SERVICES

Macquarie University provides a range of Academic Student Support Services. Details of these services can be accessed at: <http://www.student.mq.edu.au>.

INSTITUTE OF ACTUARIES OF AUSTRALIA

You should consider joining the Institute of Actuaries of Australia, if you haven't done so already. The Institute of Actuaries of Australia has recently introduced a new FREE university subscription for full-time undergraduate university students who are members of a student actuarial society. For information and to sign-up, go to: <http://www.actuaries.asn.au/UniversitySubscriber.htm>.

QUESTIONS

If you have any question at all about ACC 1, please feel free to ask it on the ACC 1 web site, using Discussions under the Course Tools menu (which is our website bulletin board) if it's a question that's likely to be relevant to your classmates too, or private Mail under the Course Tools menu if it's something personal or not likely to be of interest to others. Don't be afraid to ask questions. The only dumb question is the one that doesn't get asked!

ACTUARIAL CONTROL CYCLE 1 2010 TIMETABLE

Week	Week Beginning	Topic/Activity	UAM Chapter	Teacher	Assessment Task Due
1	22 Feb	Overview: Control Cycle	1	LT	
2	1 March	Context of Actuarial Work	5, part of 14	BE	
3	8 March	Enterprise Risk Management	2	BE	
4	15 March	Regulation	7	BE	
5	22 March	Meeting Consumers' Needs	4	BE	Assignment 1 (End of week)
6	29 March	Product Design	8	AG	
STUDY	5 April	NO CLASSES			
BREAK	12 April	NO CLASSES			Assignment 2 (End of week)
7	19 April	Class Presentations		LT/BE/AG	Presentation
8	26 April	Modelling and Data	9, 10	AG	
9	3 May	Modelling and Data	9, 10	AG	
10	10 May	Need for Capital	11	AG	
11	17 May	Pricing	13	AG	
12	24 May	Pricing	13	AG	Reflective writing
13	31 May	Revision		LT	
9-25 June (inclusive)		MID-YEAR FINAL EXAM PERIOD			

Notes to students:

- *Changes to the timetable may occur. Any alterations will be advised in classes and on the ACC 1 web site.*