

**ACST400/831/831X**  
**ACTUARIAL CONTROL CYCLE 1 (ACC 1)**

**COURSE UNIT OUTLINE**  
**Semester 1, 2008**

**ACC 1 Teaching & Support Team**

Team Member	Team Role	Room	Telephone	Consultation
John Shepherd	Coordinator/Teacher	E4A 618	9850 8573	You can contact each team member via the ACC 1 web site
Bruce Edwards	Visiting Teacher	-	-	
Andrew Geue	Teacher	E4A 609	9850 8455	
Hong Xie	Unit Administrator	E4A 621	9850 4776	

**Subject: Actuarial Control Cycle 1 (ACC 1)**

<b>Credit points</b>	4
<b>Prerequisite</b>	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)
<b>Accreditation</b>	Macquarie University's course 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

**Course unit aims**

The overall aim of the Control Cycle subject 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), so that you will be able to apply those principles and concepts to a wide range of problems and issues.

Of course you will not be expected to show the same degree of skill and judgement as a qualified actuary. 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.

The Institute of Actuaries of Australia’s Part II Syllabus for the Actuarial Control Cycle can be found at this web page (scroll down to “Part II Syllabus” and click on “HERE”):

<http://www.actuaries.asn.au/Education/Courses/PartTwo>

### **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:

<b>Enrolment stream</b>	<b>Day</b>	<b>Time</b>	<b>Location</b>
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.

### **ACC 1 web site (using Blackboard)**

The ACC 1 web site 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 – we recommend at least every couple of days. The ACC 1 web site entry page is at: <https://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
- 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 you received at enrolment and which is available at:

<http://www.ocs.mq.edu.au/POLICIES/mqrules.html>

### **Textbook (UAM)**

There is just one textbook for ACC 1, referred to here and elsewhere in this course unit as UAM. The book, available from its publisher, The Institute of Actuaries of Australia (IAAust), is:

- Bellis, C, Shepherd, J & Lyon, R (2003) *Understanding Actuarial Management: the actuarial control cycle*, Institute of Actuaries of Australia

The CD that accompanies the textbook contains additional set readings. Other useful articles will be made available on the ACC 1 web site from time to time.

To order your copy of the book, go to this IAAust web page (and click on “Order Form – UAM”):

<http://www.actuaries.asn.au/PublicationAndResearch>

### **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.

### **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:

<b>Grade</b>	<b>Level of understanding represented by that grade</b>
<b>HD</b>	As for grade D, plus: <ul style="list-style-type: none"> <li>• Able to recognise &amp; explain the application of actuarial principles to types of problem not seen before</li> <li>• Able to apply basic principles/concepts to scenarios widely different from the familiar</li> </ul>
<b>D</b>	As for grade CR, plus: <ul style="list-style-type: none"> <li>• Able to apply basic principles/concepts to problem scenarios that differ significantly from the standard or familiar</li> <li>• Able to explain actuarial principles/concepts in clear, simple, non-technical language</li> </ul>
<b>CR</b>	As for grade P, plus: <ul style="list-style-type: none"> <li>• Able to apply basic principles/concepts to problem scenarios that differ slightly from the standard or familiar</li> <li>• 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"> <li>• Able to recognise and explain professional issues arising in actuarial work</li> </ul> </li> </ul>
<b>P</b>	<ul style="list-style-type: none"> <li>• Able to state clearly basic actuarial principles/concepts</li> <li>• Able to apply basic principles/concepts to standard or familiar problem scenarios</li> <li>• Able to explain basic principles/concepts of actuarial work</li> </ul>
<b>PC</b>	<ul style="list-style-type: none"> <li>• Inconsistent and scattered evidence of P level understanding, but insufficient to suggest reasonable likelihood of successful learning in ACST401/832</li> </ul>
<b>F</b>	<ul style="list-style-type: none"> <li>• No evidence of achieving P level understanding</li> </ul>

### Assessment tasks

<b>Assessment task</b>	<b>Weighting</b>	<b>Brief outline</b>
Assignment 1	10%	Research the background to a financial product/service in a certain country; write a report on the key findings
Assignment 2	10%	Research the risks faced by an organisation; write a report recommending how to manage those risks
Textbook tasks	5%	Complete a range of tasks (roughly one for each relevant chapter of UAM), some of which will be graded
Presentation	5%	Give an oral presentation of the main features of your report for Assignment 2
Contribution to discussion	5%	Nominate your best contributions to the online discussion topics on our web site
Reflective writing task	-	Write about your experience of learning in this subject (to be graded satisfactory or not satisfactory)
Final exam	65%	A conventional 3-hour written exam

Full details of each assessment task, including submission details, will be given on the ACC 1 web site. You will need a satisfactory grade for the reflective writing task in order to achieve an overall passing grade for ACC 1.

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 make a genuine attempt at each assessment task.

### **Timing of final exam**

The final exam will be held on a date to be announced by Macquarie University during the period 11-27 June. The University's exam timetable will be available some time during May.

### **IAAust exemptions**

Macquarie University units ACST400/831/831X and ACST401/832/832X together count for exemption from The Institute of Actuaries of Australia's Part II subject "The Actuarial Control Cycle". You will automatically gain exemption from Part II if you achieve a grade of CR (Credit) or better (HD or D) in both ACST400/831/831X and ACST401/832/832X.

### **Plagiarism**

In order to maintain the high standards of a Macquarie University degree, the University uses a strict and progressive approach to plagiarism. You should note carefully Macquarie University's policy on plagiarism, because it 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.

### **Special Consideration**

In case the quality of your learning and work in this subject is adversely affected by illness, accident or some other form of unavoidable disruption, you should familiarise yourself with the special consideration provisions in Macquarie University's Bachelor Degree Rules 7 and 9 on page 98 in the 2008 Handbook of Undergraduate Studies. For how to request special consideration:

[http://www.efs.mq.edu.au/student\\_support/important\\_processes/special\\_consideration](http://www.efs.mq.edu.au/student_support/important_processes/special_consideration)

### **Calculators**

It is highly unlikely that you will need a calculator at the ACC 1 final exam, but if you will need one you will be given plenty of notice.

### **Questions?**

If you have any question at all about ACC 1, please feel free to ask it on the ACC 1 Web site, using the Discussions (Bulletin Board) if it's a question that's likely to be relevant to your classmates too, or Private Mail 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  
Timetable (Semester 1, 2008)**

Week No	Week Beginning	Topic/Activity	UAM Chapter	Teacher	Assessment Task Due
1	25 Feb	Overview: Control Cycle	1	JS	
2	3 March	Context of Actuarial Work	3	JS	
3	10 March	Regulation	4	BE	
4	17 March	Meeting Consumers' Needs	5	BE	
5	24 March	Focus on feedback		JS	Assignment 1
6	31 March	Assessing Risk	6	BE	
7	7 April	Assessing Risk	6	BE	
	14 April	<b>NO CLASSES</b>			
	21 April	<b>NO CLASSES</b>			Assignment 2
8	28 April	Presentations		BE/AG/JS	Presentation
9	5 May	Product Design	7	AG	
10	12 May	Modelling	8	AG	
11	19 May	Need for Capital	9	AG	
12	26 May	Pricing	11	AG	Reflective writing
13	2 June	Being Professional	2	BE	
11-27 June (inclusive)		<b>MID-YEAR FINAL EXAM PERIOD</b>			

*Notes to students:*

- Changes to the timetable may occur. Any alterations will be advised in classes and on the ACC 1 web site.
- There will be NO campus class on Monday, 24 March (Easter Monday public holiday).