

MACQUARIE
UNIVERSITY



FACULTY OF
BUSINESS AND ECONOMICS

ACST401 and ACST832 Actuarial Control Cycle 2

Second Semester, 2010

Actuarial Studies Department

**MACQUARIE UNIVERSITY
FACULTY OF BUSINESS AND ECONOMICS
UNIT OUTLINE**

| | |
|---------------------------|---|
| Year and Semester: | Second Semester 2010 |
| Unit convenor: | Shauna Ferris |
| Prerequisites : | Completion of a degree in Actuarial Studies, plus Actuarial Control Cycle 1 (or the equivalent) |
| Credit points: | 4 |

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 one of the teaching staff in the unit.

ABOUT THIS UNIT

Unit description

The overall aim of the Control Cycle subjects 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 area (e.g. insurance, pensions, superannuation, finance, friendly societies), government and other environments, so that you may be able to apply these 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 problem 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.

Together with ACC1, this unit aims to help you move towards the level of skill and judgment which is required of a qualified actuary. You should develop an understanding of “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 2010.

The Institute of Actuaries of Australia Part II syllabus can be found at <http://www.actuaries.asn.au/EducationandProfessional/Education/PartII.aspx>.

Please note that the requirements for achieving Associate status (AIAA) have changed, from 1 January 2010. Please see the following website for information <http://www.actuaries.asn.au/EducationandProfessional/Education.aspx>

TEACHING STAFF

- Convenor : Shauna Ferris
 Room E4A 617, email shauna.ferris@mq.edu.au

- Lecturers: Andrew Geue
 Bruce Edwards
 Shauna Ferris

- Teaching Assistant : Hong Xie
 Room E4A 622b, phone 9850 4776

For all administrative enquiries, please contact Mr Hong Xie via private mail on the Blackboard.

CONSULTATION TIMES

If you have any questions about the course material, please post questions on the Discussion Board.

You are also encouraged to seek help from a staff member teaching on this unit during their regular consultation hours. Shauna Ferris is available for consultation on Monday and Wednesday between 4:00 and 5:00 pm. In special circumstances, an appointment may be made outside regular consultation hours. You may also phone staff during their consultation hours.

Students experiencing significant difficulties with any topic in the unit should seek assistance immediately.

CLASSES

ACC2 is offered in three modes:

1. Campus Classes at Macquarie University North Ryde
2. City Classes at the Portside Centre in the Sydney CBD
3. Distance education

Campus classes

There are 2 two-hour lectures per week.

| | | |
|------------|-----------------|--------|
| Mondays | 2:00 to 4:00 pm | E7B T3 |
| Wednesdays | 2:00 to 4:00 pm | E7B T5 |

Any alterations to the class times or locations will be advised in class and on the Blackboard.

City classes

There is one three-hour lecture each week, on Tuesdays 5:30 to 8:30 pm. The venue is the Portside Centre, Level 5, 207 Kent Street, Sydney.

Any alterations to the class times or locations will be advised in class and on the Blackboard.

Distance education class

If you have enrolled for distance education mode, then you will not be attending classes (usually because you don't live in Sydney!). You will have access to all materials from the face to face classes (learning guides, lecture slides/overheads, handouts, exercises etc) and the same discussions and other activities via the ACC2 Blackboard.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

There is one textbook for ACC2, referred to here and elsewhere in this unit as UAM.

Clare Bellis, Richard Lyon, Stuart Klugman and John Shepherd, (2010) *Understanding Actuarial Management* (second edition), published by the Institute of Actuaries of Australia.

This book can be purchased from the Institute of Actuaries of Australia. The order form is on the IAAUST website. Also, a copy has been placed in Special Reserve in the library (Private Copy – enquire at the Special Reserve desk).

Other useful articles will be set out in the Learning Guides, and made available on the ACC2 Blackboard.

There is a Learning Guide for each section of the work. We recommend that you read the Learning Guide before coming to the lectures, and bring a copy with you to lectures.

We will not provide all the old exam papers. The syllabus has changed and some of the old exam papers are no longer relevant. We have selected the most relevant exam papers and these are included in the Learning Guides, and will be discussed in class and/or on the Discussion Board.

UNIT WEB PAGE

The ACC2 website (using Blackboard) is integral to this course unit, whether you are a distance student or in a face to face class.

The Blackboard can be accessed via <http://learn.mq.edu.au>. Blackboard is compatible with the following web browsers: Netscape7.2; Microsoft Internet Explorer 6.0 or 7; AOL 9.0; Mozilla 1.7x or Firefox 1.0x, 1.5x, or 2.0.

We will make Announcements about unit administration and assessment tasks via the Blackboard. You should check the unit Announcements regularly, at least every couple of days.

We encourage active participation in the Discussions on the Blackboard. You can ask questions about anything you don't understand, and share your ideas about topics raised in class. For distance students, participation in the Discussions is part of the unit assessment. (as explained below).

Before using the ACC2 website, please read the document called Security Policy and Rules Governing the Use of Computing and Communications Facilities at Macquarie University, which is available at <http://www.ocs.mq.edu.au/POLICIES/mqrules.html>

GRADUATE CAPABILITIES

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop the capabilities the University's graduates will need to develop to address the challenges, and to be effective, engaged participants in their world. This unit contributes to this by developing the following graduate capabilities:

- Discipline Specific Knowledge and Skills
- Critical, Analytical and Integrative Thinking
- Problem Solving and Research Capability
- Effective Communication
- Capable of Professional and Personal Judgement and Initiative

TEACHING AND LEARNING STRATEGY

The face-to-face classes will usually follow the same format as ACC1, i.e. the class time will include some presentations of course material by the lecturer, discussions involving the whole class, small group work, and individual activities.

In most weeks we will ask you to do some preparatory work – reading, research, or just thinking. The chapter tasks (described below) will help you to prepare.

| Week commencing | Topic | Lecturer | UAM Chapter |
|-----------------|---|---------------|-------------|
| 1. August 2 | Valuing Liabilities | Andrew Geue | 12 |
| 2. August 9 | Profit | Andrew Geue | 16 |
| 3. August 16 | Enterprise Risk Management | Bruce Edwards | 6 |
| 4. August 23 | Solvency | Shauna Ferris | 15 |
| 5. August 30 | Solvency | Shauna Ferris | |
| 6. September 6 | Professionalism | Bruce Edwards | 3 |
| 7. September 13 | Class Presentations | | |
| September 20 | Study Break | | |
| September 27 | Study Break | | |
| 8. October 4 | (Monday – public holiday) Case Study: Regal / Occidental | Bruce Edwards | |
| 9. October 11 | Monitoring Experience | Bruce Edwards | 17 |
| 10. October 18 | Monitoring Experience | Bruce Edwards | |
| 11. October 25 | Responding to Experience | Bruce Edwards | 18 |
| 12. November 1 | Responding to Experience | Bruce Edwards | |
| 13. November 8 | Revision | Shauna Ferris | |

CLASS ETIQUETTE

Mobile phones should be switched off during all lectures and tutorials. If there is a reason for you to keep your phone on you should request to be allowed to do so before the start of the class. Lectures commence at 5 minutes past the hour and you are expected to be punctual. You are expected to keep talking to a minimum during classes so as not to disrupt your fellow students (and the lecturer!).

RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

Assessment Tasks

| Task | Weighting | Due Dates |
|--|-----------|---|
| Textbook Chapter Tasks | 6% | Chapter 16 – August 9 Chapter 6 – August 16 Chapter 15 – August 23 Chapter 3 – September 6 Chapter 17 – October 11 Chapter 18 – October 25 |
| Assignment 1 – Presentation Preparation | 5% | September 13 |
| Assignment 2 (Campus and City Students only) – Class Presentation | 5% | September 13 |
| Assignment 2 (Distance Students only) - Contribution to Discussion | 5% | Throughout semester (see more detailed description in Assessment Tasks folder) |
| Assignment 3 - Essay | 14% | October 4 |
| Final Exam | 70% | |
| | | |
| Total | 100% | |

University policy requires us to conduct a diagnostic test early in the term. This does not count for assessment, but is used to identify students who may need extra assistance. This will be an online quiz available via Blackboard during the first three weeks of term.

Full details of each assessment task will be given on the ACC2 Blackboard. The submission dates for the assessment tasks are spread over the semester, so that you can plan your work accordingly.

In order to pass this unit, students must have satisfactory performance on both the coursework and the final exam. Exemptions will also be determined after considering performance on both the coursework and the final exam.

Extensions: If you are unable to complete any assessment task on time, due to illness or other unavoidable disruption, please send a private mail message to Hong Xie via the Blackboard, explaining the circumstances. The lecturer in charge may

decide to grant an extension. Work commitments would not normally be grounds for an extension.

Late submissions: Work which is submitted late will incur a penalty of 10% of the marks for each day (or part day) late.

Examinations

A 3 hour final examination for this unit will be held during the University Examination period. The University Examination period in Second Half Year 2010 is from November 17 to December 3.

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 examination, and no reference materials are allowed to be taken into the final examination.

You should ensure that your handwriting in the final examination is legible. If we can't read your answer, then we can't give you any marks.

Local (Sydney-based) students are expected to present themselves for examination at the time and place designated in the University Examination Timetable. The 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. See <http://www.timetables.mq.edu.au/exam>

Distance students (outside Sydney) must contact Hong Xie to organize (and confirm) the location and supervision for the final examination. If these students do not confirm their exam city by the announced due date, there is a risk that their examination will not be organized.

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for Special Consideration. The University's policy on special consideration process is available at http://www.mq.edu.au/policy/docs/special_consideration/policy.html

If a Supplementary Examination is granted as a result of the Special Consideration process the examination will be scheduled after the conclusion of the official examination period.

The Macquarie university examination policy details the principles and conduct of examinations at the University. The policy is available at: <http://www.mq.edu.au/policy/docs/examination/policy.htm>

ACADEMIC HONESTY

The nature of scholarly endeavour, dependent as it is on the work of others, binds all members of the University community to abide by the principles of academic honesty. Its fundamental principle is that all staff and students act with integrity in the creation, development, application and use of ideas and information. This means that:

- all academic work claimed as original is the work of the author making the claim
- all academic collaborations are acknowledged
- academic work is not falsified in any way
- when the ideas of others are used, these ideas are acknowledged appropriately.

Further information on the academic honesty can be found in the Macquarie University Academic Honesty Policy at http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

Turnitin software will be used to check assessment tasks for plagiarism. Plagiarism may result in serious penalties. Students are expected to be aware of the University policy on plagiarism (available on the University website).

GRADES

Please refer to relevant Bachelor Degree rule in the Handbook of Undergraduate Studies.

EXEMPTIONS

The units Actuarial Control Cycle 1 and Actuarial Control Cycle 2 together correspond to the Part II professional requirements. The exemption will be recommended if and only if a SNG of at least 60 is achieved in both units and the average SNG is at least 65. In order to earn the exemption, you must demonstrate satisfactory performance in both the coursework and the final exam.

The Institute of Actuaries of Australia appoints external examiners. The external examiners review the examination paper, and also review marking standards. The external examiners review the performance of students who are near the borderline (slightly above or below exemption standard) to ensure that appropriate exemption standards are maintained.

Cross institutional students

Each year there are a few cross-institutional students, i.e. students who have completed ACC1 at another University.. Exemptions for cross institutional students will be determined on a case by case basis, after consideration of your results from both Universities, and after discussions with academic staff at the other University and with the external examiners. Cross institutional students who wish to be considered for exemption should provide a copy of their transcripts from their previous University, along with a letter giving permission for us to discuss your performance with staff from the other University. Please send the transcript and letter to Hong Xie, Actuarial Studies Department, Faculty of Business and Economics, Macquarie University NSW 2019.

Authorisation forms

Privacy laws will prevent us from revealing your grades to outside bodies such as the Institute of Actuaries of Australia, unless you give us permission to do so. Therefore, students who wish to obtain an exemption should fill in an authorisation form and submit it to Actuarial department, Macquarie University. A copy of the form is available in the Administration folder on Blackboard. Please print off the form and sign it, then submit it through the assignment tool of Blackboard. Instructions for submission are given with the authorisation form.

GRADING APPEALS AND FINAL EXAMINATION SCRIPT VIEWING

If, at the conclusion of the unit, you have performed below expectations, and are considering lodging an appeal of grade and/or viewing your final exam script please refer to the following website which provides information about these processes and the cut off dates in the first instance. Please read the instructions provided concerning what constitutes a valid grounds for appeal before appealing your grade.

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

SPECIAL CONSIDERATION

The University is committed to equity and fairness in all aspects of its learning and teaching. In stating this commitment, the University recognises that there may be circumstances where a student is prevented by unavoidable disruption from performing in accordance with their ability. A special consideration policy exists to support students who experience serious and unavoidable disruption such that they do not reach their usual demonstrated performance level. The policy and procedure are available at:

http://www.mq.edu.au/policy/docs/special_consideration/policy.html

http://www.mq.edu.au/policy/docs/special_consideration/procedure.html

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>.

BESS. Business and Economics Student Services (BESS) is located in room E4B106 and offers photocopying facilities, reading areas and reference material. For campus students, assessment tasks will be returned to BESS. Information about facilities and services is at

http://businessandeconomics.mq.edu.au/for/new_and_current_students/undergraduate/bess.

IT CONDITIONS OF USE

Access to all student computing facilities within the Faculty of Business and Economics is restricted to authorised coursework for approved units. Student ID cards must be displayed in the locations provided at all times.

Students are expected to act responsibly when utilising University IT facilities. The following regulations apply to the use of computing facilities and online services:

- Accessing inappropriate web sites or downloading inappropriate material is not permitted. Material that is not related to coursework for approved unit is deemed inappropriate.
- Downloading copyright material without permission from the copyright owner is illegal, and strictly prohibited. Students detected undertaking such activities will face disciplinary action, which may result in criminal proceedings.

Non-compliance with these conditions may result in disciplinary action without further notice.

Students must use their Macquarie University email addresses to communicate with staff as it is University policy that the University issued email account is used for official University communication.

ELECTRONIC COMMUNICATION AND YOUR STUDENT FILE

Every business keeps a record of its correspondence with its customers. The University is no exception and it maintains a file for every student. Staff are required to ensure that copies of all correspondence with you are added to your file. Historically, “correspondence” meant letters, but nowadays it also includes electronic communication such as email. Staff have some discretion here and might not file copies of trivial emails, but it is difficult to define precise boundaries here, so it is safer to assume that any email you send to a staff member will be added to your file.

Some people regard email as more ephemeral than a letter and thus tend to take less care with issues such as clarity of expression, grammar and spelling. Before sending an email to a staff member, a good question to ask yourself is: “If a member of staff is reviewing my student file prior to writing a reference for me, and they see a copy of this email, would that staff member gain a favorable impression of my level of communication skills?”

In this context, email includes communications you send to staff with the mail tool in the unit’s web site. It does not normally include postings you make to the discussion area. However, in those very rare cases where a student makes an inappropriate posting to the discussion area, a copy of the posting would be added to that student’s file.

INSTITUTE OF ACTUARIES OF AUSTRALIA

The Institute of Actuaries of Australia (IAAust) has recently launched a new free offer for students to become IAAust University Subscribers. Full time undergraduates studying at an Institute accredited university who are members of a university student actuarial society are eligible. To sign up, go to

<http://www.actuaries.asn.au/Membership/MembershipoftheInstitute/Subscriber.aspx>.

The University Subscriber offer is not a membership of the IAAust but a subscription to receive information on career opportunities, invitations to selected IAAust events and online publications. You might also consider joining the IAAust – there are advantages in doing so while a full-time student. For membership information, go to

<http://www.actuaries.asn.au/Membership/MembershipoftheInstitute.aspx>

ACSTINFO

The ACSTINFO site (accessed via the Blackboard) is used to distribute information to all students majoring in actuarial studies. The information supplied may include administrative information and job advertisements. You will retain access to this site during the vacation following the end of this semester. It is to your advantage to ensure you read information on this web site regularly. You should not assume that information posted there will also be repeated in lectures. To access the site, login at: <http://learn.mq.edu.au/> and the site should appear among your list of units. When you first login, please read the section labelled "How to use this site." This contains useful information which will help you determine when there is new information on the site which you should read.