

**ACST 255 Contingent Payments 1**  
**SECOND SEMESTER 2006**

**UNIT OUTLINE**

**Unit Timetable**

| Week | Week Beginning | ActEd Chpt | Topic Covered  |
|------|----------------|------------|--|
| 1    | 31 July        |            | Introduction to Life Tables  |
| 2    | 7 August       | 1          | Assurances   |
| 3    | 14 August      | 2          | Annuities  |
| 4    | 21 August      | 2/3        | ...continued plus more on Life Tables                                |
| 5    | 28 August      | 3/4        | Life Tables plus Evaluation of Assurances and Annuities              |
| 6    | 4 September    | 4/5        | ...continued plus Net Premiums                                       |
| 7    | 11 September   | 5          | Net Premiums & Provisions plus Class Test                            |
|      | 18 September   |            | Study Break  |
|      | 25 September   |            | Study Break  |
| 8    | 2 October      | 5          | Net premiums & provisions  |
| 9    | 9 October      | 6          | Variable benefits & with-profits policies                            |
| 10   | 16 October     | 6          | ....continued  |
| 11   | 23 October     | 7          | Gross premiums & provisions for fixed and variable benefit contracts |
| 12   | 30 October     | 7          | ...continued   |
| 13   | 6 November     |            | Spare/revision   |

Please note that the timing of the topics may be amended as the semester progresses. Any alterations will be advised in lectures/on the unit webpage.

## Questions to Teaching Staff in the Unit

Questions relating to the administration of the unit should normally be posted in the Discussion Area of WebCT under the "Admin" Topic, provided that they have not already been answered in the Unit Outline, of course, and directed to Sue Clarke as the Unit Coordinator. Only personal administrative questions, ie those that do not relate to anyone else in the course, should be sent via the private email facility of WebCT. Questions relating to the unit content should be posted on the appropriate Topic in the Discussion Area, or put to your tutor in tutorials. Course content questions sent via private email will not be answered. There are 160 students and only one lecturer, and while it is true that I eat, sleep and dream contingent payments that does not mean that I wish to cover each part of the course 160 times.

## Unit Details

Unit Name: Contingent Payments 1

Credit Points: 3

Prerequisites: ACST151(P); ACST200(P);STAT272(P);GPA  $\geq$  2.50,admission to BCom –Act Stud quota

Corequisites: None

## Unit Description

This unit covers the analysis of cash flows dependent on uncertain events. Single decrement survival models will be used to analyse the present value of payments under life insurance and annuity contracts. The concepts of pricing and reserving for future contingent liabilities are considered.

## Assumed Knowledge and Skills

A comprehensive understanding of the compound interest and statistical concepts contained in the pre-requisites is assumed.

## Lectures

Lectures are held at the following times:

| Day     | Time  | Location |
|---------|-------|----------|
| Monday  | 11-12 | C5CT1    |
| Tuesday | 9-11  | C5CT2    |

Any alterations to the lecture times or locations will be advised in lectures and/or on the unit webpage.

## **Tutorials**

| <b>Day</b> | <b>Time</b> | <b>Location</b> |
|------------|-------------|-----------------|
| Wednesday  | 9-11        | W5A205          |
| Thursday   | 11-1        | C5A226          |
| Thursday   | 11-1        | E6A133          |
| Thursday   | 4-6         | W5A103          |

Tutorials will commence in the first week of lectures.

Tutorial exercises will be available from the unit web site each week.

Due to classroom constraints you may only attend the tutorial for which you are enrolled. These tutorials are an opportunity for you to work on the week's tutorial questions and to obtain help with them as needed. It is up to you how much you get out of them by how much preparation you do beforehand.

Any alterations to the tutorial times, locations or enrolments will be advised in lectures or on the unit webpage.

## **ACST25 Web Site**

To access this web site, go to <http://online.mq.edu.au/public/ACST255/>

Note that the address is case sensitive.

If you did not understand the above, you can obtain training on how to use a web browser by contacting the Information Technology Training Unit on Level 1 of the Library. If you can't access the site due to having forgotten your password, contact the Information Technology Customer Support Desk also on Level 1 of the Library. Teaching staff in this unit do not have access to your private password.

Before logging in to this site, you should follow the link labelled "Technical Information" and read all the information there, including the Computer and Communications Security Policy and the Computer and Communications Usage Rules. This technical information mentions a number of "plugins" that may be required. Of those listed, in this unit you will only need Acrobat Reader.

If your home computer does not have internet access, you can access this web site from computers in the library.

## **ACSTINFO Web Site**

To access the site, go to: <http://online.mq.edu.au/pub/ACSTINFO/>

Note that the address is case-sensitive. Your account and password are the same as those you use in other units using the WebCT software, such as the site mentioned in the previous section.

This site 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.

When you login to this site, 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.

## Class Etiquette

(a) **Mobile phones:** Academic Senate has resolved that no mobile phones should be used in classrooms or be brought into examination rooms including class tests.

Mobile phones must be switched off during all lectures and tutorials. They may not be brought into the classroom for examinations or class tests.

(b) **Punctuality:** Lectures commence at 5 minutes past the hour. In this course we are lucky in that our classes are held in the mornings while most of us are still bright and keen to learn. However a few people seem to find it hard to arrive on time.

If you are late for a class, please take a seat in the back two rows. If you are on time, do not sit in the back two rows, unless you are actively seeking to be associated with the late-comers.

Penalties may apply for breaches of these guidelines.

## Textbooks

For both this unit and the associated third year unit ACST355 we will be using the CT5 Course Notes from ActEd Australia. If you have not already obtained a copy of through ASSOC please visit ActEd at <http://www.acted.com.au/ordering/> for details on how to order. These course notes will not be available in ERIC, the Library or for purchase through the Co-op Bookshop.

## Grading

Macquarie University uses the grades HD, D, Cr, P, PC and F for grading the achievements of students in units of study. The meaning of each symbol is explained under Grades of Achievement in the Macquarie University Handbook of Undergraduate Studies. The numerical marks resulting from assessment of your work in this unit will be used as an initial indicator of the quality of your learning and understanding. The use of these numerical marks is, however, only a starting point in determining the appropriate grade. Grading is a question of quality, not quantity in terms of the number of marks accumulated.

When you work as an actuary or in any other profession, if you misunderstand a concept you may provide incorrect advice to a client possibly with severe financial consequences for your client and yourself. However, if you realise that you have no understanding of a concept you may refrain from giving advice on it until you have filled the gaps in your knowledge. That is, misunderstandings are more dangerous than a lack of knowledge. The grading philosophy and marking scales adopted in this unit reflect the above situation. While correct and relevant statements earn marks, statements that are incorrect will result in the deduction of marks. If your answers reveal that your misunderstandings are very severe or numerous, you might earn a negative mark for a question.

If a part of a question is worth  $x$  marks, the smallest mark you can be allocated for that part is  $-x$  marks.

## Assessment

The following table gives an indication of the relative weighting of the assessment components:

|                   |     |
|-------------------|-----|
| Class Test (1)    | 5%  |
| Final Examination | 95% |

## Class Test

There is one class test scheduled for week 7. This will cover the topics studied in weeks 1 to 5 inclusive.

Part or all of this test will be in Multiple Choice/True-False/Short Answer format, where credit is given only for correct answers and not for intermediate working. Whilst this test counts for only 5% of the final assessment, it is a valuable tool with which to gauge your progress in this unit, and can also be used to demonstrate satisfactory or otherwise coursework in the event of a request for Special Consideration at the end of the semester.

Normal examination rules apply to the conduct of class tests. These rules are set out under the heading “Rules governing student’s conduct in examinations” in the Student Information – Assessment section of the current Macquarie University Handbook of Undergraduate Studies. Students are responsible for familiarising themselves with these rules prior to the class test.

Communication devices, including but not restricted to mobile phones, text message receivers, pagers and wireless-equipped calculators, may not be brought into the class tests or exam. If a student is found to have brought such a device into the examination or test room, the argument that the device was turned off will NOT be regarded as an acceptable excuse.

## Final Examination

The final examination will be a three-hour written paper with ten minutes reading time.

The final examination may include multiple choice questions. You should ensure that you bring several 2B pencils and an eraser to the examination.

## Reference Material in Exams and Tests

In both the test and final exam you may use:

One A4 size page containing handwritten and/or typed notes on either or both sides.

## Exemptions

The units ACST 255 and ACST355 together correspond to subject CT5 of Part 1 of the professional qualification. **You require an HD, D or Cr grade in each of these units to receive an automatic exemption.** If you gain an average GPA of 65 over the two subjects with a minimum of 60 in each you may apply for the exemption through the administrator of the Actuarial Studies Department .

### **Special Consideration**

If 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 pages 91-92 in the 2005 Handbook of Undergraduate Studies. **All requests for special consideration should be made in writing, on the standard form, and submitted to the Student Enquiry Service on level 1 of the Lincoln Building.**

You must complete a Professional Authority Form to accompany any application for special consideration based on medical grounds. The special consideration application and professional authority forms are available from the Student Enquiry Service, or from this web site:

<http://www.registrar.mq.edu.au/academic-index.htm>

Note that a request for special consideration is NOT a request for a supplementary exam. A supplementary exam is merely one way in which the special consideration may be granted, and the fact that you are not asked to sit a supplementary exam does not mean that any special circumstances affecting your performance have not been taken into account.

### **Calculators/Computers**

Calculators will be allowed in the class test and 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, whether or not they have a full alphabet on the keyboard, are not allowed.

Calculators may be checked at the commencement of the class tests and final exam, and the make/model may be recorded.

### **Use of Computers for Coursework**

The computer laboratories available to you are in rooms C5C 211,213,215,217 and 219 where you will have access to all the software relevant to this unit.

Please take careful note of the policy of the Department of Actuarial Studies regarding the use of computers, which follows.

### **Economic Resource and Information Centre (ERIC)**

This is located on the ground level of C5C and offers photocopying facilities, reading areas etc.

## DEPARTMENT OF ACTUARIAL STUDIES

### NOTICE TO STUDENTS RE USE OF COMPUTERS FOR COURSEWORK

1. Computer networks do occasionally break down. This is a normal part of working life. When completing assignments, you should not leave computer work until the last moment, assuming the system will be available when you need it.
2. You are the person responsible for keeping backup copies of any data or files you create on a PC. If you fail to keep backup copies, loss of data or files, for whatever reason, is not an acceptable excuse for failing to complete an assignment on time.
3. You should have at least two backups. If you have only one backup disk, then a computer malfunction while you are updating your backups may simultaneously corrupt both the original version (on the hard disk or network) and your backup disk. Do not store your two backups together. Spread your risks.
4. If you are planning to write a document on one PC (eg. your home PC) and print it from a different PC, you should test well ahead of the due date that the second PC can print your document. This particularly applies if your documents incorporate graphs, tables, unusual fonts or special formatting.

#### **The Institute of Actuaries of Australia**

The Institute of Actuaries of Australia is the sole professional body for actuaries in Australia. To practice as an actuary in Australia you must be a member of the Institute.

You are encouraged to join the Institute as a student member. As a member, you will receive publications produced by the Institute and invitations to attend discussion meetings organised by the Institute. These publications and discussions may help broaden your knowledge and assist you in your university studies.

An entry fee applies, and this fee is much lower if you join while still a full-time university student rather than waiting until you complete your university studies. Application forms may be downloaded from the Institute of Actuaries of Australia website. You will find a link to this website from the Actuarial Studies homepage.

#### **Cheating and Plagiarism**

To cheat in the context of university assignments, tests and examinations is to attempt to gain an unfair advantage by violating the principles of intellectual and scholarly integrity. Cheating also encompasses plagiarism, which is the appropriation or imitation of another person's ideas and manner of expressing them.

You are responsible for familiarising yourself with the document entitled "The dangers of cheating and plagiarism and how to avoid them" at

<http://www.efs.mq.edu.au/cheating.html>