



**ACST151**

**INTRODUCTION TO ACTUARIAL STUDIES**

**UNIT OUTLINE**

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**

ACST151 is designed to give you an introduction to actuarial work. In this unit you will

- Be introduced to some of the main areas of actuarial work, including banking, life insurance, general insurance, investment, superannuation, and health finance
- Understand why your actuarial education will include some economics, some accounting, some business finance, some computing, and some statistics, as well as the core actuarial subjects.
- Encounter some fundamental tools used by actuaries (such as the life table, statistical distributions, investment return models, and reserve estimation techniques)
- Understand some of the basic concepts of actuarial work (like present values, cash flow projections, equations of value, etc)
- Understand why actuaries develop and use mathematical models of real-world processes.

## TEACHING STAFF

Team Member	Team Role	Room	Contact
Shauna Ferris	Unit Coordinator / Lecturer / Tutor	E4A 617	sferris@efs.mq.edu.au
Prof. John Pollard	Lecturer	Visiting Staff (not on campus)	
Assoc. Prof. John Shepherd	Lecturer / Tutor	E4A 618	<a href="mailto:jshepher@efs.mq.edu.au">jshepher@efs.mq.edu.au</a> 9850 8573
Garreth Sweeney	Teaching Assistant		gsweeney@efs.mq.edu.au

## CLASSES

Lectures are held at

Tuesday	11:00 to 1:00	inW5A PRICE THEATRE
Wednesday	12:00 to 1:00	inW5A PRICE THEATRE

Students will be assigned to one tutorial group. Each group meets once a week on Friday for a one-hour tutorial. The tutorials are held at the following locations

Group	Time	Location	Tutor
1	Friday 9 am	W5C 303	John Shepherd
2	Friday 9 am	W5A103	Shauna Ferris
3	Friday 10 am	W5C303	John Shepherd
4	Friday 10 am	W5A103	Shauna Ferris
5	Friday 12 am	W6B315	John Shepherd
6	Friday 12 am	W5A105	Shauna Ferris

Students cannot change from one class to the other without the permission of the Unit Coordinator.

The tutorials are an important part of your weekly learning cycle, and they also provide a good opportunity to get to know some of your fellow students. Your tutor's role is to help you learn. The tutorial exercises for each week are available on the ACST151 Blackboard (described below). Please print out the tutorial questions and attempt the questions before coming to the tutorial each week.

## **CLASSROOM ETIQUETTE**

Students are expected to arrive on time, certainly before five minutes past the hour, and not to leave until the class ends. If you have a recurring problem that makes you late, or forces you to leave early, have the courtesy to discuss this with your lecturer/tutor.

Students are expected to be quiet during lectures unless, of course, class participation is required.

Mobiles should be turned off during classes; not simply set to “silent”.

When sending messages via the website (Blackboard), students are expected to treat all of their colleagues with courtesy and respect.

## **REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS**

The prescribed textbook is:

*Introduction to Risk and Insurance*, by Professor JH Pollard,  
Published by Perdisco, Sydney, 2002

For a price of \$79.95 (including GST) you can buy a printed copy of the textbook, plus an internet based electronic workbook. The workbook complements the textbook by giving you access to sample spreadsheets that illustrate the actuarial techniques covered, as well as weekly practice problems to help you learn these techniques. This package also includes access to some on-line assessment tasks.

The workbook is internet-based, so you can use it at any time of day, any day of the week, from anywhere in the world, wherever you can get internet access.

Copies of the textbook and the electronic workbook will also be available in the library.

Instructions for obtaining a copy of the textbook and access to the electronic workbook are provided in the attachment at the back of this unit outline.

Note that additional notes will be posted on the Blackboard for some topics.

## **UNIT BLACKBOARD (WEB PAGE)**

All students who are enrolled in ACST151 will have access to the ACST151 Blackboard. A great deal of useful information will be made available on the Blackboard, including copies of lecture overheads, tutorial exercises and solutions, practice problems, assignments, and copies of old test and exam papers.

The website also allows you to communicate with your lecturers and with other students. You can post messages on the discussion board and/or send Private Mail to anyone else in the group.

Administrative announcements will be posted on the Blackboard.

STUDENTS SHOULD CHECK THE BLACKBOARD AT LEAST ONCE A WEEK.

The web page for this unit can be found at: <http://online.mq.edu.au>. You can log in to the Blackboard by clicking on “Login” and entering your Macquarie University username and Password.

If you have any trouble accessing the Blackboard, you can ring the HELPDESK which is at 9850-HELP (9850- 4357).

During your first lecture, we will give you a demonstration of some useful Blackboard features.

### ASSESSMENT TASKS

Your performance in this unit will be assessed by the following assessment tasks.

Task	Weight
Two class tests worth 8% each	16%
Perdisco assignments	8% (in total)
Assignment 1	8%
Assignment 2	8%
Assignment 3	8%
Final Examination	52%

Students must have satisfactory performance in both the assessment tasks and the final examination in order to pass this unit.

Further information about the assignments will be provided on the Blackboard later in the term.

The final exam will be 3 hours plus 10 minutes reading time.

In ACST151 tests and examinations, students will be allowed to use a calculator, as long as it does not have any text retrieval capabilities. Students will be allowed to take one A4 pages of notes, written on both sides, into the exam. No other aids are allowed.

Final examinations are held between June 11 and June 27. The date and time of the ACST151 final examination will be determined by the Academic Program Sections, which timetables all examinations for the University. The schedule will be posted on the University website later in the term. See below for University policy on examinations.

## STUDENT SUPPORT SERVICES

Besides the general services available (see below), the Division of Economics and Financial Studies has ERIC: the EFS Resource and Information Centre. Refer to the website at [http://www.efs.mq.edu.au/student\\_support/eric](http://www.efs.mq.edu.au/student_support/eric) for a description of the services provided by ERIC (which is on level 1 in Building E4B)

## WEEKLY TABLE OF TOPICS

Week	Lecturer	Topics covered	Reading
1	John Shepherd	Introduction to ACST151	
2	John Pollard	Gambling, Risk and Ruin	Chapter 1
3	John Pollard	Gambling, Risk and Ruin	Chapter 1
4	John Pollard	Risk Transfer by Insurance	Chapter 2
5	John Pollard	More Varied Risks	Chapter 3
6	Shauna Ferris	Estimating Reserves & Measuring Profits in Insurance	Chapter 4
7	Shauna Ferris	Life Insurance and TEST 1 (Wednesday)	Chapter 5
BREAK			
8	Shauna Ferris	Life Insurance	Chapter 6
9	Shauna Ferris	Life Insurance	
10	John Shepherd	Retirement Income	Notes provided
11	John Shepherd	Varying Investment Returns / TEST 2 (Wednesday)	Chapter 7
12	John Shepherd	The Actuarial Control Cycle	Notes provided
13	Shauna Ferris	A Case Study	

## IMPORTANT GENERAL REQUIREMENT FOR ALL UNITS

### EXAMINATIONS:

You are expected to present yourself 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. <http://www.timetables.mq.edu.au/exam>

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. Information about unavoidable disruption and the special consideration process is available at: <http://www.reg.mq.edu.au/Forms/APSCon.pdf>

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.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, that is, the final day of the official examination period.

No aids, other than a pen and pencil, may be brought into an exam *unless specifically permitted by the Convenor*. The following are expressly forbidden: mobile phones, calculators, computers, I-pods, PDAs, MP3s and any other electronic aid, and books.

### **PLAGIARISM AND CHEATING:**

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 Disciplinary Committee.

Plagiarism is simply a type of cheating. Any confirmed cheating may result in serious penalties, including deduction of marks, failure in the unit, and/or referral to the University Disciplinary Committee.

### **UNIVERSITY POLICY ON GRADING:**

Academic Senate has a set of guidelines on the distribution of grades across the range from fail to high distinction. Your final result will include one of these grades plus a standardized numerical grade (SNG).

The standard grading scheme is:

0 – 44	Fail
45 – 49	Conceded Pass
50 – 64	Pass
65 – 74	Credit
75 – 84	Distinction
85 – 100	High Distinction

Your SNG will not necessarily be the same as your raw score (i.e. the sum of scores from your assessment tasks) because marks can be scaled and the teaching staff may use judgment in deciding your grade.

For an explanation of the University’s policy on grading, see:  
<http://www.mq.edu.au/senate/MQUonly/Issues/Guidelines2003.doc> or  
<http://www.mq.edu.au/senate/MQUonly/Issues/detailedguidelines.doc>

### **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>

