ACST399 Mathematical Theory of Risk
FIRST SEMESTER 2005

Unit convenor: Leonie Tickle
Prerequisites: STAT 272 (P)

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

This unit examines the use of statistical models in general insurance. Models to estimate the number of claims likely to be encountered and the likely range of claim sizes are studied. These models are then used as a basis for modelling the probability of ruin. The unit also examines methods for assessing the extent to which a particular company’s historical claims experience can be regarded as a reliable guide to the future, looks at estimation of outstanding claim reserves, and examines the effect of reinsurance.

This unit relies heavily on your previous study in STAT 272 and you should ensure that you revise STAT 272 if necessary. In particular, you should be familiar with:

- the theory of statistical distributions, including the meaning of a random variable, discrete and continuous random variables, density functions, cumulative density functions;
- basic results relating to expectation, variance, covariance, and moment and cumulant generating functions;
- joint random variables and marginal density functions;
- the use of Normal Distribution and Chi-Squared distribution tables;
- probability theory, including conditional probability; and
- some mathematical techniques and results including integration by parts, inversion of a 2 by 2 matrix, and the binomial, logarithmic, exponential, and Taylor series approximations.

TEACHING STAFF

- Leonie Tickle Room C5C 488 Phone 9850 8567
  Consultation hours: Wednesday 1.30-2.30, Thursday 2.30
- Shauna Ferris Room C5C 492 Phone 9850 7294
  Consultation hours: Tuesday 4-5, Thursday 3-5

Questions relating to the administration of the unit should be directed to Leonie Tickle as the unit convenor. Questions relating to the unit content should be directed to your lecturer for that section of work (during the tutorial or during consultation hours). You can send emails to lecturers through the unit’s website.
**CLASSES**

Classes (all of which start in week one) are held:

- **Tuesday** 2 pm – 4 pm Lecture W5A T1
- **Wednesday** 11 am – 1 pm Lecture E7B T5
- **Thursday** 12 noon – 1 pm Tutorial W5C 220

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

**Required texts**

Unit notes, including lecture handouts and exercises, will be available for purchase from the Co-op bookshop (weeks 1 – 8) or posted on the unit website (weeks 9 – 13).

**Recommended texts**


Recommended texts are available from the Macquarie University Co-op Bookshop. Copies are also available in the library.

**Reference text**

  (Casualty Actuarial Society).

This text is available in the library.

Other references will be made available in ERIC during the semester.

**UNIT WEBSITE**

To access the website, go to [http://online.mq.edu.au](http://online.mq.edu.au) and login using your usual login and password. You will then have access to the websites for all the units in which you are enrolled. If you have any trouble logging in (e.g. you have forgotten your password), please contact the Library Information Customer Service Desk.

Before logging in to the ACST 399 site, you should follow the link labelled “Using WebCT” and read all the information there, including the Information Technology Security Policy and Rules and the Information Technology Usage Rules. This technical information also mentions a number of “plugins” that may be required. Of those listed, in this unit you will only need Acrobat Reader.

The website for this unit contains:

- **Unit announcements.** Lecture and other announcements throughout the semester.
- **Unit outline.** A copy of this unit outline.
- **Discussion board.** To discuss problems with your fellow students.
- **Private mail.** To contact the lecturers and for the lecturers to contact you.
- **Unit notes.** Complete lecture notes for downloading each week.
- **Quizzes.** A quiz for each week of work, with solutions.
- **Optional modelling exercise.** This covers works in weeks 1 – 4.
- **Tests and exams.** Past class tests and exams with solutions.
- **Revision exercises.** Additional revision questions with solutions.
It is your responsibility to check the website regularly to make sure that you are up-to-date with announcements and with messages sent to your Private Mail address.

Remember to close your browser when you have finished using the site. If you don't, another person can use the still running browser to access the website with your account.

**LEARNING OUTCOMES**

The learning outcomes of this unit are summarised at the start of each section of work. You should revise these after each week to ensure your understanding of the learning objectives.

In addition to the discipline-based learning objectives, all academic programs at Macquarie seek to develop students' generic skills in a range of areas. One of the aims of this unit is that students develop their skills in the following:

- Critical analysis skills;
- Problem-solving skills;
- Creative thinking skills.

**TEACHING AND LEARNING STRATEGY**

The unit material is covered in the four hours of lectures each week. The tutorial is an opportunity for you to attempt questions for each section of work, or to ask the lecturer questions. You should also use the Discussion Board to ask questions or discuss concepts covered in the unit.

<table>
<thead>
<tr>
<th>Week Number</th>
<th>Week Beginning</th>
<th>Topic Covered</th>
<th>Test</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28 February</td>
<td>Statistical Distributions and Results</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>7 March</td>
<td>Statistical Distributions and Results (cont)</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>14 March</td>
<td>Estimation</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>21 March</td>
<td>Testing Fit; Reinsurance</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>28 March</td>
<td>Individual Risk Models</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>4 April</td>
<td>Collective Risk Models</td>
<td>Test 1</td>
<td>LT</td>
</tr>
<tr>
<td>7</td>
<td>11 April</td>
<td>Ruin Theory</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>STUDY</td>
<td>18 April</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BREAK</td>
<td>25 April</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2 May</td>
<td>Reinsurance and ruin</td>
<td>LT</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>9 May</td>
<td>Generalised Linear Models</td>
<td>SF</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>16 May</td>
<td>No Claim Discounts</td>
<td>Test 2</td>
<td>SF</td>
</tr>
<tr>
<td>11</td>
<td>23 May</td>
<td>Decision Theory</td>
<td>SF</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>30 May</td>
<td>Credibility Theory</td>
<td>SF</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>6 June</td>
<td>Outstanding Claims Reserves</td>
<td>SF</td>
<td></td>
</tr>
</tbody>
</table>

**RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES**

This unit is assessed using two class tests and a final examination. This is suitable given the problem-solving and technical nature of the unit. It is also to encourage you to revise the material regularly, since the unit is challenging and demanding.
Tests

Each test is worth 10% of the final assessment for the unit.

Test 1 will be held Tuesday 5 April at 2 pm. It will cover Sections 1 to 4 inclusive (weeks 1 to 4 inclusive).

Test 2 will be held Tuesday 17 May at 2 pm. It will cover Sections 5 to 8 inclusive (weeks 5 to 8 inclusive).

A Formula Sheet will be provided in the class tests. No other reference material is permitted.

Applications for special consideration due to documented illness or unavoidable disruption must be made on the “Advice of Absence or other Circumstances” form. These are available from http://www.reg.mq.edu.au/ and should be submitted to the Student Enquiry Service on Level 1 of the Lincoln Building.

Exam

The final examination is worth 80% of the final assessment for the unit.

You will be provided with a copy of the blue version of the book Formulae and Tables for Actuarial Examinations and a formula sheet in the final examination. You should familiarise yourself with the tables book prior to the examination: copies are in the library (HG 8067,F67).

The University Examination period in First Half Year 2005 is from 15 June to 29 June. 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 from 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/.

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

Test and Examination Rules

Normal examination rules apply to the conduct of class tests and the final examination. These rules are set out under the heading “Conduct of 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 tests and the final examination.

You should ensure that your handwriting in the class tests and in the final examination is legible. Sections of work that are not legible will not be marked.
Academic Senate has resolved that no mobile phones should be brought into examination rooms. Mobile phones must be switched off during class tests.

Calculators will be allowed in the class tests 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.

Dictionaries will not be permitted in the class tests or the final examination.

**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.

**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 standardised numerical grade (SNG).

On occasion your raw mark for a unit (i.e., the total of your marks for each assessment item) may not be the same as the SNG which you receive. Under the Senate guidelines, results may be scaled to ensure that there is a degree of comparability across the university, so that units with the same past performances of their students should achieve similar results.

It is important that you realise that the policy does not require that a minimum number of students are to be failed in any unit. In fact it does something like the opposite, in requiring examiners to explain their actions if more than 20% of students fail in a unit.

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.

ERIC

The EFS Resource and Information Centre (ERIC) is located in room CSC 244 and offers photocopying facilities, reading areas and reference material.

ACSTINFO

This ACSTINFO 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.

To access the site, go to: http://online.mq.edu.au/pub/ACSTINFO/ (Note that the address is case-sensitive.) 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.

INSTITUTE OF ACTUARIES OF AUSTRALIA

Please refer to

http://www.actuary.mq.edu.au/current_students/join_institute.shtml

for information on the advantages of joining the Institute of Actuaries of Australia as a student.
DO NOT REMOVE
THE STAPLES
ACST344 SURVIVAL MODELS
FIRST SEMESTER 2005
UNIT OUTLINE

Unit Description

Much actuarial work relies on analysing and managing financial risks which depend on probabilities of survival or termination. This unit looks at the models which can be used to analyse these processes. It examines the collection of suitable demographic and social data, such as rates of mortality, ill-health retirement, etc, and their conversion to a useable format, as well as the application of the resulting rates to the valuation of contracts such as insurance. The unit also examines the sources of publicly available demographic data and techniques for assessing the reliability and suitability of such data for the task at hand.

How to Contact Teaching Staff Involved in the Unit

The staff involved in the teaching of this unit are Clare Bellis, the Unit Coordinator, and Leonie Tickle. Questions relating to the unit content should be directed to the lecturer for that section of work via the Discussion facility on the ACST344 website. Questions relating to the administration of the unit should be directed to Clare Bellis via the Discussion facility on the website. Please use the Private Mail facility on the website only to submit administrative questions of a private nature.

Unit Details

Unit Name: Survival Models Credit Points: 4 Prerequisites: ACST243

Please consult with the unit coordinator if you have queries about the prerequisite requirement for the unit. If you do not satisfy the prerequisite and have not had the prerequisite waived then you will be automatically withdrawn from the unit, possibly after the HECS census date.

Lectures

Lectures are held at the following times:

<table>
<thead>
<tr>
<th>Day</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday</td>
<td>11-1</td>
<td>E7B T5</td>
</tr>
<tr>
<td>Wednesday</td>
<td>9-11</td>
<td>E7B T3</td>
</tr>
</tbody>
</table>

Any alterations to the lecture times or locations will be advised in lectures and via the website.
Tutorials

There is a one hour tutorial session each Thursday at 1-2 in WSC 220. This time is intended as an opportunity for you to ask questions of the lecturer about the material covered that week.

Any alterations to the tutorial times or locations will be advised in lectures and via the website.

Unit Timetable

<table>
<thead>
<tr>
<th>Week Number</th>
<th>Week Beginning</th>
<th>Topic Covered</th>
<th>Assignment /Test</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>28 Feb</td>
<td>1 Introduction to Survival Models</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>2</td>
<td>7 March</td>
<td>1 (cont); 2A Binomial Model</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>3</td>
<td>14 March</td>
<td>2B Kaplan-Meier/Nelson Aalen Estimators</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2C Cox Proportional Hazards Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>21 March</td>
<td>3 Introduction to Markov Models</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>5</td>
<td>28 March</td>
<td>4 Estimation for Markov Models</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>6</td>
<td>4 April</td>
<td>5 Exposed to Risk</td>
<td></td>
<td>LT</td>
</tr>
<tr>
<td>7</td>
<td>11 April</td>
<td>6 Actual vs Expected</td>
<td></td>
<td>LT</td>
</tr>
<tr>
<td>STUDY BREAK</td>
<td>18 April</td>
<td></td>
<td>Test</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>2 May</td>
<td>7A Graduation Part 1</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>9</td>
<td>9 May</td>
<td>7B Graduation Part 2</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>10</td>
<td>16 May</td>
<td>8 Introduction to Financial Contracts</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>11</td>
<td>23 May</td>
<td>9 Assurances and Accumulations</td>
<td></td>
<td>CB</td>
</tr>
<tr>
<td>12</td>
<td>30 May</td>
<td>10 Premiums and Policy Values</td>
<td>Assignment</td>
<td>CB</td>
</tr>
<tr>
<td>13</td>
<td>6 June</td>
<td></td>
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</tr>
</tbody>
</table>

Please note that changes to the timetable may occur and that any alterations will be advised in lectures and via the website.

Textbook

There is no textbook for this unit. Unit notes, including lecture handouts and exercises, will be available for purchase from the Co-op bookshop. These notes have blanks for you to complete during lectures. The complete notes are available to be downloaded from the website.

In the class test and examination you will be provided with a copy of Formulæ and Tables for Actuarial Examinations, published by the Institute of Actuaries and Faculty of Actuaries. You will be able to download the basic data used to construct the tables from the web site and you will learn how to use a spreadsheet to generate all the functions you need for exercises during the semester. However, it is very important that you have a good idea of how the tables are laid out before you have to use them under examination conditions. You should look at the copies that are available in ERIC and in the library, where there are copies in Reserve, 3-day loan and unrestricted (HG8067.F67).

Note also that the green copies (in the library) have more formulæ in the front section than the blue copies (in ERIC). The books supplied for the class test and examination will be the blue version. The layout of the tables, which is the important part, is the same in both versions.
The ACST344 Web Site

To access this website, go to http://online.mq.edu.au/. If you did not understand this instruction, you can obtain training on how to use a web browser by contacting the Information Technology Training Unit on Level 1 of the Library.

Before logging on, you should follow the link labelled Using WebCT – Technical Information – IT Rules, and read the linked documents there. You can now logon. 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. If your home computer does not have internet access, you can access this website from computers in the library.

The website will be used as an integral part of this unit. The main components of the website are as follows.

- **Unit Outline**
  You can download this unit outline from here.

- **Class Discussion**
  Unit announcements will be made through this facility. You should use the Discussions facility, along with the tutorial time, as your main resource for asking questions about the unit. You are also encouraged to post answers to other students’ questions. You are able to post messages anonymously if you wish, although we prefer that you reveal your identity. You should consult the Discussions frequently, at least once a week.

- **Private Mail**
  You should use the Mail facility to contact the Unit coordinator about private administrative matters only. It will also be used to contact you individually, if necessary. You can also use this facility to contact your fellow students. Check your mailbox regularly for messages.

- **Download Unit Notes**
  Complete notes and solutions to exercises will be posted here. It is important to attempt the exercises yourself before referring to the solutions.

- **Download Exams and Tests**
  Previous examinations and tests for ACST344, ACST397 (now discontinued) and ACST231 (now discontinued) are available here.

- **Assignment**
  All material to do with the computing assignment, including the assignment itself, data, the cover sheet etc. will be available here.

- **Software**
  Graduation software which will be used throughout the course is available here.

- **Mortality Tables**
  Mortality rates required for this unit are available here.

Additional pages may be made available throughout the semester.
Assessment

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

<table>
<thead>
<tr>
<th>Assessment Component</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class Test</td>
<td>10%</td>
</tr>
<tr>
<td>Group Assignment</td>
<td>10%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>80%</td>
</tr>
</tbody>
</table>

Class Test

There is one class test scheduled for Tuesday 12 April at 11 am. The test will cover weeks 1 to 6 inclusive (sections 1 to 5 inclusive). The *Formulae and Tables for Actuarial Examinations* book will be provided in the class test, if necessary. Please note that the class test date, time and coverage may be subject to change, and that any alterations will be advised in lectures and via the website.

Normal examination rules apply to the conduct of the class test. 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. Students are responsible for familiarising themselves with these rules prior to the class test.

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

Group Assignment

The group assignment will involve a graduation and test of some mortality data, with an accompanying report. The assignment is due Thursday 26 May at 5 pm.

Late assignments will be penalised except in exceptional circumstances and by prior arrangement with the Unit Coordinator. The penalty will be one mark (10% of the total mark) per day (or part day).

Please take careful note of the policy of the Department of Actuarial Studies regarding the use of computers for coursework, which is set out later in this outline. Please also take careful note of the section of this unit outline titled Cheating and Plagiarism in relation to your assignment. You will be issued with an assignment cover sheet; please ensure that you sign and submit the cover sheet with your assignment, after reading the notes on plagiarism.

Final Examination

The final examination will be a three-hour written paper with ten minutes reading time. The examination will cover the whole course, so it may include questions on material already tested in the class test.

You will be provided with a copy of the book *Formulae and Tables for Actuarial Examinations* in the final examination.

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 Exam and Test

You may take into the class test and the final examination one A4 sheet of paper containing any notes you wish on both sides. It can be handwritten, typed or photo-reduced.

Legibility of Handwriting

You should ensure that your handwriting in the class assessment tasks and in the final examination is legible. Sections of work that are not legible will not be marked. For true/false questions, answers that are not clearly legible as either T or F will be assumed to be wrong and marked accordingly.

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 in section of the Bachelor Degree Rules on p 88 of the current 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. In particular, note that the mark ranges mentioned on p. 40 of the Handbook of Undergraduate Studies are not the raw marks. To obtain a grade you must satisfy the qualitative definition of that grade. Once your grade has been determined, you are allocated a standardised mark indicating your approximate position amongst students assigned that grade.

Special Consideration

Applications for special consideration in respect of the class test or the group assignment must be made on the “Advice of Absence or other Circumstances” form. These are available from and should be submitted to the Student Enquiry Service on Level 1 of the Lincoln Building.

Applications in respect of the final exam must be made on the “Request for Special Consideration” form. These forms are available from and should be submitted to the Academic Program Section on Level 4 of the Lincoln Building.

Applications based on medical grounds (whether for the class test, group presentation task, or final examination) must be accompanied by the Professional Authority Form. Applications omitting this form (such as those which only supply a doctor’s certificate) will be ignored.

The application forms are also online at http://www.registrar.mq.edu.au/academic-index.html.

Exemptions

The unit ACST344 corresponds to the professional subject 104. You require a HD, D or Credit grade in this unit to receive the exemption.
The Institute of Actuaries of Australia

Please refer to http://www.actuary.mq.edu.au/current_students/join_institute.shtmlm for information on the advantages of joining the Institute of Actuaries of Australia as a student.

Mobile Phones

Academic Senate has resolved that mobile phones should not be used in classrooms or be brought into examination rooms. 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 room, the argument that the device was turned off will NOT be regarded as an acceptable excuse.

ACSTINFO Web site

To access the site, go to: http://online.mq.edu.au/pub/ACSTINFO/ (the address is case-sensitive.) 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.

EFS Resource and Information Centre
(ERIC)

The EFS Resource and Information Centre is located in room C5C 244 and offers photocopying facilities, reading areas and reference material.

Calculators/Computers

Calculators will be allowed in the class test and the final examination provided they are portable, silent and battery operated, 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 the labs on the ground floor of C5C. Please take careful note of the policy of the Department of Actuarial Studies regarding the use of computers, which follows.

DEPARTMENT OF ACTUARIAL STUDIES

NOTICE TO STUDENTS RE USE OF COMPUTERS FOR COURSEWORK

1. Computers 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 computer. 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 computer (eg. your home computer) and print it from a different computer, you should test well ahead of the due date that the second computer can print your document. This particularly applies if your documents incorporate graphs, tables, unusual fonts or special formatting.

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.student.mq.edu.au/plagiarism/.
DO NOT REMOVE THE STAPLES