

MACQUARIE UNIVERSITY
ACST211 : COMBINATORIAL PROBABILITY
UNIT OUTLINE SECOND SEMESTER 2005

1 Things you should do as soon as possible

1. Read this unit outline thoroughly. If there is anything you do not understand, seek clarification at the first lecture.
2. If the section labelled "15 Credit Point Programs and GPAs" indicates you should consult an academic adviser, do so as soon as possible.
3. Go to the ACST211 web site described below. Make sure you can login. If you have forgotten your password, proceed immediately to the IT Customer Support Desk on Level 1 of the library to get it reset.
4. On the web site, go to the quiz section. Do the Certification Quiz. After submitting your answers, view your results and see whether your answers are acceptable. If you complete this quiz with acceptable answers before 11:30am on the Tuesday in week 1 of term, you will earn a bonus ½ mark on your assessment.
5. When you have completed the certification quiz with satisfactory answers, the Practice Quiz becomes available. Do the Practice Quiz several times. Try getting answers right and wrong to see how it behaves.

2 Unit Timetable

Week Number	Week Beginning	Topic
1	1 August	1. Permutations
2	8 August	2. Combinations
3	15 August	3. Evaluating Probabilities by Enumeration of Cases
4	22 August	4. Probability Theorems
5	29 August	5a. Bayes' Theorem 5b. Generating Functions
6	5 September	6a. Linear Difference Equations 6b. Random Variables – Reading Topic
7	12 September	7. Expected Values
2 week study break		
8	3 October	9. Volumes by Double Integrals – Public holiday on Monday
9	10 October	8. Recursive Methods
10	17 October	10. Probabilities by Nested Integrals
11	24 October	11. Introduction to Markov Chains
12	31 October	12. Long Run Behaviour of Markov Chains
13	7 November	Free for revision

The order of topics 8 and 9 has been reversed to accommodate the lost lecture in week 8.

3 Unit Description

Much of the work that actuaries do relates to the assessment and management of the financial consequences of risk. This analysis typically requires calculations involving probability. This unit is a study of probability, its nature and meaning, and a range of techniques for determining a numeric measure of the probability that a specific event will occur. The unit has a practical emphasis, focusing on applications of theory to evaluate probabilities of defined events.

3.1 Unit Workload

Macquarie University used to publish a guideline that a competent well-prepared student should expect to spend, on average over the semester, about 4 hours per week per credit point on their university studies. This is a 3 credit point unit, so this implies you might spend about 12 hours per week on this unit, including class time.

When surveys showed that on average students weren't spending this long on their studies, the University reduced the guideline from 4 hours per week to 3 hours per week. The logical basis for this decision is unclear, since it seems that there is no evidence that the subset of students *who obtained reasonable results* were working less than 4 hours per week per credit point. You should note that the content of this unit was not arbitrarily reduced by 25% when the guideline was changed and grading standards have not been weakened, so it is probably appropriate to continue using the old guideline.

3.2 Unit Objectives

By the end of this unit you should:

- understand the fundamental concepts and principles of the range of probability approaches examined.
- be able to apply those concepts and principles in determining probabilities for defined events and solving probability-based problems.
- be able to explain in clear, simple non-technical language the concepts, principles and processes you are using, so that another student of the unit could follow your explanation.
- be able to explain in clear simple, non-technical language why a problem solution is correct (or not correct), so that another student of the unit could follow your explanation.
- have confidence in your ability to determine and manipulate probabilities.
- have further developed your problem-solving skills.

Throughout the unit you should also be able to demonstrate ethical behaviour by complying with examination rules and assessment task rules, and by not colluding on assessment tasks.

4 Assessment

4.1 The Grading Process

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 10 of the Bachelor Degree Rules in 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 "Standardised Numerical Grades" (SNGs) appearing on your results are not 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 SNG in the appropriate range for that grade indicating your approximate position amongst students assigned that grade.

In ACST211, quality of learning is interpreted in terms of **understanding**, which can be demonstrated by:

- applying concepts and principles to solve problems which are not necessarily of exactly the same type as problems encountered previously; and
- explaining, in clear, simple, non-technical language the concepts, processes and rationale behind the mathematical symbols.

The final examination will consist of 2 papers, each of 90 minutes duration with no reading time. The questions in the first paper of the final exam are short routine questions while those in the second paper allow you to demonstrate your deeper understanding.

In Step 1 of the grading process, the quizzes and paper 1 of the final exam will be used to subdivide students into the categories of 'Fail', 'Conceded Pass' and 'Pass or better'.

In Step 2 of the grading process, the quizzes and both papers of the final examination will be used to subdivide students in the last category into 'High Distinction', 'Distinction', 'Credit' and 'Pass' categories. If Step 1 resulted in you being placed in the 'Pass or better' category, you cannot be awarded a grade less than pass in Step 2.

To earn a clear pass you need to demonstrate competence in solving the short routine problems encountered in the quizzes and Paper 1 of the exam. It may be possible to gain a Pass grade merely by memorising and reproducing the formulae and methods encountered in the lectures and tutorial exercises. To obtain a grade of credit or better you will need to demonstrate that you have come to terms with the **meaning** behind the mathematics by making progress on some of the problems in Paper 2 of the exam.

If you do not want a grade better than 'Pass', you need not attempt the second paper of the final examination.

The following table gives an indication of the relative weighting of the assessment components for the two steps of this process:

	Step 1	Step 2
Quizzes	10%	5%
Exam - Paper 1	90%	45%
Exam - Paper 2	–	50%

4.2 Dangerous misunderstandings are penalised

When you work as an actuary or in any other profession, if you have a dangerous misunderstanding of 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 don't understand a concept you may refrain from giving advice on it until you have filled the gaps in your knowledge. That is, dangerous misunderstandings have more serious consequences than a lack of knowledge.

The grading philosophy and marking scales adopted in this unit (and in many other university units) reflect this situation. Correct relevant statements earn marks. Statements revealing dangerous misunderstandings 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.

As an example, a minor error when keying numbers into your calculator is not usually regarded as a dangerous error provided the resulting incorrect answer is plausible. However, if a calculator error results in an obviously unreasonable answer, such as a negative probability or a probability exceeding 1, and you fail to state that you realise this answer is unreasonable, this would be regarded as a dangerous misunderstanding.

4.3 There are no quotas!

You are not competing against your colleagues for some limited number of good grades. You are competing against objective standards. Thus it is not in your interests to withhold your knowledge from your colleagues. If you all share your knowledge and assist each other you can all get better results.

Really!

If everyone gets to the pass standard, we will pass everyone. For example, several actuarial studies units are 'protected' by a GPA prerequisite of 2.5, and these units do occasionally have semesters where everyone passes. ACST211 replaced the unit ACST210. When ACST210 had a GPA prerequisite of 2.5, one particularly keen cohort achieved a pass rate of 98%.

ACST211 was first offered in 2002 and it does not have GPA prerequisite. Unfortunately there are students who ignore all academic advice and attempt this unit in spite of having a GPA below 2.5 and such students seldom pass. Hence it is unlikely that we will have a semester where everyone passes ACST211.

But there are still no quotas and the grade distribution can vary significantly from year to year. Since 2002 the fail rate for ACST211 has varied significantly between 15% to 25%. The proportion of the students gaining credits or better in ACST211 has varied between 42% and 54%.

4.4 Special Consideration

If the quality of your work in this unit is adversely affected by illness, accident or other form of unavoidable disruption, you should acquaint yourself with the special consideration provisions in Bachelor Degree Rules 7(3) and 9 which appear in the current year's Handbook of Undergraduate Studies.

Applications for special consideration in respect of one of the quizzes should 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 must include a 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.htm>

Note that in respect of the final examination special consideration can only be granted if your previous performance in the unit, as assessed by the quizzes, has been satisfactory. Also, if in respect of this unit you are found guilty of breaching any of the examination rules, the Information Technology Security Policy & Rules or the Information Technology Usage Rules you will automatically be regarded as having unsatisfactory performance for the purposes of determining eligibility for special consideration, due to not satisfying the unit objective concerning ethical behaviour.

By submitting a request for special consideration you are agreeing to be available to sit a Supplementary Examination if required. If a Supplementary Examination is granted as a result of the Special Consideration process then

- The examination will be scheduled after the conclusion of the official examination period.
- Your performance in that Examination replaces your performance in the original examination (if any). You do NOT have the right to subsequently request that your result be based on the original examination rather than the Supplementary Examination.

- If you fail to attend the Supplementary Examination you will be awarded the grade of "Fail - Absent".

5 Final Exam

5.1 Examination Rules

Prior to the exam you should familiarise yourself with the rules shown under the heading "Rules governing student's conduct in examinations" on p40-41 of the current Handbook of Undergraduate Studies.

5.2 Material in Exam

You may not bring any notes or dictionaries into the exam.

Calculators are allowed in the exam, but calculators that have a text-retrieval capacity, whether or not they have a full alphabet on the keyboard, are not allowed. Calculators may be checked during the exam, and the make and model may be recorded.

Communication devices, including but not restricted to mobile phones, text message receivers, pagers and wireless-equipped calculators, may not be brought into the examination room. 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.

5.3 Dates

The University Examination period in second semester 2005 is from Wednesday 16 November to **Friday 2 December**. Note that this last date differs from that originally published in the 2005 Handbook of Undergraduate Studies.

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. It will be available at:

<http://www.timetables.mq.edu.au/exam>

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 official examination period.

5.4 Frequently asked questions

After the exam is over, there are frequently questions such as:

"I've just realised I forgot to cross out some wrong working. Can you please ignore it?" "I just realised I crossed out something which was right. Can you please mark it?" "I've just realised I misread a question. Can you please mark my answer assuming the question had instead been ...?" "Can you mark something that I wrote on the blank left page of the answer book?"

No. You are expected to answer the question that was asked. You are assessed solely on the answers as they stand at the end of the exam time, not on how you subsequently decide you would have liked them to look. As explained on the front of the answer booklet, only the answers written on the ruled right hand pages of the answer books are marked.

6 ACST211 Web Site

ACST211 and many other units have web sites which use software called WebCT. Go to <http://online.mq.edu.au/student/> and use the "login" link on that page. The address is case-sensitive. After you login you will see a "MyWebCT" page which lists all Macquarie University WebCT sites to which you have access, including the ACST211 site.

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.

Please note the information on the login page concerning changes in usernames which have been implemented since first semester. Your login name is now your student id number.

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

The first time you use this site you should follow the link labelled "Technical Information" and view all the information there, including thoroughly reading the Information Technology Security Policy & Rules and the Information Technology 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. (Technically, you only need software capable of displaying pdf files, and there are alternatives to Acrobat Reader.)

The web site contains:

- Tutorial solutions and lecture overheads, which will become available after the relevant class.
- Past exams papers.
- Assessable quizzes.
- A discussion area.

7 Assessable Quizzes

The assessable quizzes are available on the ACST211 web site. They will cover the first 5 weeks of the unit.

Quizzes on a week's work become available at 4pm of Friday of that week. They remain available until 4pm Thursday of the following week. With respect to the deadlines, please be aware of the department policy on use of computers, shown later in this document.

When completing the quizzes, you may refer to any notes, textbooks or other non-human resources, but you must not seek assistance from any humans or offer assistance to any other students. Your results for a quiz become available when the deadline for completing the quiz has passed. You should not discuss the quiz with anyone – including fellow students who claim they have already submitted the assignment – until the deadline has passed. Note that a breach of any of these requirements constitutes a failure to satisfy one of the unit objectives and so would automatically result in a fail grade being awarded.

An exception to the above is that if you believe a question to be ambiguous, you should seek clarification from the lecturer via the mail tool in WebCT. You should do this well ahead of the deadline for the quiz. Don't expect assistance in this regard if for example you only get around to reading the quiz questions the day before they are due. Seeking clarification of a quiz question from anyone else, including your colleagues, before the deadline for the quiz has passed, constitutes a breach of the quiz requirements.

7.1 Frequently asked questions

"I've submitted my quiz and I've just realised I made a mistake in one of the questions. Can you change my answer?"

No. Would you expect to be allowed to change your answer to an exam question after the exam was over?

"I forgot to do the quiz and the deadline has passed. Can I have another chance?"

No. It is your responsibility to complete the quiz before the deadline.

"I was unable to do the quiz due to illness. What happens?"

Read the section labelled "Special Consideration".

"It won't let me into the assessable quizzes."

That's not a question, but did you complete the Certification Quiz? Did you view your results for the Certification Quiz?

"I just submitted an assessable quiz but it isn't showing me my mark. Why not?"

You can't view your mark until after the deadline for completing the quiz.

8 ACST211 Discussion Area

The discussion area is part of the web site described above.

If you have any thoughts or questions about the material in ACST211, please raise them either during classes or in the discussion area, so that everyone in the class gets to hear/read your thoughts or has a chance to answer your question.

While the lecturer does read the discussion area every few days, he tends not to interrupt if those debating a particular issue are still making progress.

8.1 Topics

The discussion area is divided into topics. When you view the contents of a topic, you will initially see a list of the "threads" in that topic. Click on the blue triangle pointing to the right. This will display the messages in that thread.

There is a discussion area topic for each topic in the unit. There are also topics for discussing past exams and for administration.

The "Testing" topic is your practice area. If you are new to the WebCT software and just want to send a test message saying something like "Hey! I just posted a message", please send it to the "testing" topic. This topic may be emptied after a few weeks.

The "Main" topic is for everything that doesn't fit into the other topics.

8.2 Software Oddities

Here are a few other tips for dealing with the WebCT discussion area. Detailed information is also available from the "help" link near the top right corner of each WebCT page.

If you are posting a reply to someone else's message, view their message and press the "reply" or "quote" button. Then the software will correctly attach your reply to the same thread as the original message. This makes it easier for others to follow the thread of the argument. (Hence the name "thread".)

When you are composing your message, clicking on the "Equation Editor" button will take you to a new screen which allows you to write equations involving things like superscripts, subscripts and special mathematical symbols. It can take a while to get the hang of this part of the software if you haven't used any sort of equation editor before. However, you have chosen a profession that involves lots of mathematical equations, so if you haven't played with an equation editor before, now is a good time to start. If you already have experience with MathType or the Equation Editor that comes with Microsoft Word you will find that the WebCT equation editor isn't as powerful as those.

For simple mathematical expressions, you may find it easier to just type them as text rather than using the equation editor. When doing this, if you use a "less than" sign or a "greater than" sign, make sure you leave a space after it, as in "a < b". The reasons for this are described in the next 2 paragraphs, but they're messy so skip them if you aren't interested in computing.

The WebCT software checks whether your posting contains HTML, the language that web pages are written in. If you know HTML you can use it in your discussion postings. For example, you can make things appear in bold or italics. The HTML tags that do this are typed inside “angled brackets”, which unfortunately means they use the symbols we use for “less than” and “greater than”.

We can type things like $P(X < x)$ without causing any problems. But if I hadn't left a space between the “less than” sign and the following x , the software tries to interpret the x as an HTML tag. But it isn't valid HTML, so it ignores it all as unintelligible, usually resulting in all parts of your posting after the “less than” sign being lost. However, if you happen to use a “greater than” sign somewhere later, it will treat that as the end of the unintelligible HTML tag and correctly display text after that. This problem is only triggered when the character immediately after the $<$ is a letter, so we can write things like $P(X \leq x)$ without problems.

If all the above sounds too hard, then before posting your message use the “preview” button at the bottom of the window in which you are composing your message. This will show how your message will look to others. If you've done something to trigger any of the difficulties described above this will make it obvious and you can fix them before you post the message.

If you have access to a scanner, you can also write your algebra by hand, scan it, and post the resulting graphics file to the discussion area. However, please save your file in some compressed format such as jpg rather than a raw format such as bmp. Many of your colleagues are accessing the internet via a modem and are unlikely to want to download a bmp file of several megabytes.

8.3 Etiquette

If you are posting a question, don't phrase it as a question addressed specifically to the lecturer. Doing that would be implying that you think that none of your colleagues are capable of supplying the answer. This is seldom the case!

This software also includes a mail tool which you can use to send private messages to other members of the class. Do NOT use that tool to ask the lecturer questions about the course material. Send all your questions to the discussion area, so that your colleagues have the opportunity to see the question and can take part in working out the answer. The lecturer does not provide private answers to students who are not willing to share their questions with the class. (There is one exception to this. If you believe a question in an assessable quiz is ambiguous, you should email your query to the lecturer. Sending such a query to the discussion area before the deadline to the quiz has passed would be a breach of quiz rules and would result in disciplinary action.)

Ensure you comply with the “Information Technology Security Policy and Rules” and the “Information Technology Usage Rules” accessible from the Technical Information link on the home page. Breaches of these rules DO result in disciplinary action.

The rules indicate that offensive language is unacceptable. Please be aware that the students in this unit come from a diverse range of cultural backgrounds and that words that you regard as mild expletives may be highly offensive to others. If it helps, the word “crikey” – usually followed by at least one exclamation mark – seems to be a recognised expression of surprise or exasperation that is not known to be offensive to any cultures.

8.4 After the exam

If you wish to major in actuarial studies, you cannot afford to stop thinking about the ACST211 material as soon as the exam is over. The concepts developed in the unit are used extensively in several subsequent actuarial units. When you have finished all your exams, you should spend some time reworking the ACST211 exam paper to check your understanding.

The discussion area remains open after the exam. If you are confident that you have performed adequately in the exam, then once you have completed all your exams, post your reworked ACST211 exam answers to the discussion area. If you do not do this before the exam results are

released, then you should not expect any assistance in diagnosing what your problems were if your grade was unsatisfactory.

9 ACSTINFO web site

Your "MyWebCT" page should also show that you have access to the ACSTINFO site.

This site is used to distribute information to all students majoring in actuarial studies. The information supplied may include administrative information and job advertisements.

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.

10 Tutorials

Tutorials will commence in the first week of classes.

Please ignore the tute location that appears on the timetable you received when you enrolled. New tute lists are being prepared. The new lists will be available in the downloads section of the unit's web site around Wednesday of week 1.

In this unit attendance at lectures has generally been high but attendance at tutorials has been poor after the first few weeks. Failing to attend the tutorials is a poor strategy. The tutorials are more important than the lectures. If you miss a lecture you can always obtain the full lecture notes from the unit's web site after that week's lectures are over. However, the tutorials are your opportunity to get feedback on your level of understanding. They are also an opportunity to present your solutions on the board and get feedback on your methods and your writing style. If you are seeking a grade better than a pass, receiving feedback on the style of your answers is invaluable.

If your result in this unit is unsatisfactory, you should not expect any assistance in diagnosing the problem if you did not regularly attend and actively participate in tutorials.

10.1 Warning for Repeating students

A recent investigation of the performance of students repeating ACST211 in 2004 found some alarming results. The grade distribution of repeating students was worse than that of students attempting the unit for the first time. For example, the fail rate was higher for repeating students than for first attempt students.

Comparison with tutorial attendance sheets indicated that in 2004 many repeating students attended few or no tutorials and that it was these students who were causing the high failure rate amongst repeating students. In spite of having failed ACST211 in 2003, it seems that many repeating students were of the opinion that they already understood all the material and had no need to attend tutes. The fact that so many of these students failed ACST211 a second time in 2004 suggests that this was not the correct opinion.

Please do not waste your time and money by repeating ACST211 if you are not willing to attend and actively participate in all tutorials. If you are not willing to take ACST211 seriously, please pursue some major other than actuarial studies.

11 Textbooks

The "unit notes", available from the Co-Op Bookshop, contain lecture outlines and tutorial exercises. No textbooks are prescribed for this unit. We have not found a book of reasonable quality which covers all or most of the unit content. You are encouraged to browse the library's collection. Some relevant subject areas are combinatorics, discrete mathematics, combinatorial mathematics, probability and stochastic processes. (Use the library catalogue to perform a search by subject.)

11.1 Frequently asked question

"Can you recommend a particular book for me?"

No. If I had wanted to recommend a particular book I would have done so here. But if your browsing of the library's collection results in you finding a book you regard as particularly useful, you are free to recommend it to your colleagues via the discussion area.

12 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/>

13 Mistakes? No problem!

Mistakes are a healthy part of the learning process. You can learn a lot from mistakes. The more mistakes you understand during the learning process, the fewer you're likely to make during the exam. Understanding why a particular method is wrong is often as enlightening as knowing the right method. Paper 2 of the exam often includes questions asking you to locate and explain the faults in alleged solutions. Even the lecture examples include invalid solutions!

Please post your incorrect solutions to the discussion area and challenge your colleagues to find the errors or write them up on the board during tutorials. It doesn't matter whether you've found the error yet yourself or not. It doesn't matter whether you made the error accidentally or deliberately concocted a plausible but incorrect solution. Either way, it's still useful to share errors with the class.

14 Questions about the Course Material

In terms of class size, this is a large unit.

The disadvantage of this is that the teaching staff do not have time to provide private consultations to all the students in this unit. To give consultations to only some students would give them an unfair advantage. Instead, ask your questions during classes or in the discussion area, so that your colleagues can all hear or read your question and the response. Do not email me with questions about the course material.

The advantage of this being a large unit is that if everyone contributes to the discussion area and shares their ideas, shares their mistakes and shares the questions they invent themselves, you can collectively generate a large quantity of useful material.

15 Administration Questions

Feedback from students suggests that your colleagues are not interested in helping you read the unit outline and that they resent having their time wasted by people who post messages to the discussion area asking questions which have already been answered in the unit outline.

Similarly, most academics have become academics because they enjoy discussing their area of expertise, rather than because they enjoy carrying out tedious administration. For example, you will find that while the lecturer enjoys arguing about probability with you during classes and in the discussion area of the web site, he gains no pleasure from reciting sections of the unit outline to students who were not willing to read it for themselves.

It is your responsibility to read the unit outline and to seek clarification of anything you don't understand before leaving the first lecture.

It has become clear that not all students believe the above point. To stress its importance, a 1 mark penalty will apply for the offence of posting questions in the discussion area which have already

been answered in the unit outline or asking the lecturer such questions after the conclusion of the first lecture.

Administrative questions can be sent to me via the mail tool on the ACST211 web site, provided you are sure the question is not already answered in this unit outline. Do not send email to my university email address. That address is heavily spammed and your email is likely to be lost amongst the spam.

16 Class Etiquette

Mobile phones and other distracting devices should be turned off during classes.

In the unlikely event that some thoughtless student does allow their mobile phone to interrupt one of our classes you should help identify the offender by immediately looking in the direction from which you believe the sound is coming. If you are near enough to the sound to identify the offender you are welcome to spring to your feet, point at the offender and announce "You're nicked, son" in a cockney accent as depicted in the TV series "The Bill". This will allow the offender to be apprehended and a suitable demerit applied.

17 15 Credit Point Programs and GPAs

If you are doing the standard first year actuarial program, then at the start of the year you were signed into a 2nd semester program of 5 units involving 15 credit points. This was done since most actuarial students obtain very good results in their first semester and are quite capable of tackling 15 credit points in their second semester.

If you are one of the few whose current GPA is below 3.25, then you probably should not be attempting 15 credit points this semester. Please immediately discuss your program with an academic adviser to discuss which unit you should drop. If you ignore this advice and continue with a 15 cp program while your GPA is less than 3.25, and as result of this your GPA subsequently falls below 2.5, do not bother applying for a waiver of the GPA prerequisites on ACST200 or ACST255. Waivers are not granted to students who ignore this advice.

If your GPA is below 2.5 you should probably drop ACST211 and pursue some major other than actuarial studies. If you are considering studying ACST211 in spite of having a GPA below 2.5 you should discuss this with an academic adviser as soon as possible. Please note that historical evidence indicates that first year actuarial students with GPAs below 2.5 are unlikely to pass ACST211 on their first attempt.

18 Department Policy on Computers

Point 1 of the following policy is particularly relevant to the WebCT quizzes.

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.

Jim Farmer
Unit Coordinator