



**MACQUARIE UNIVERSITY  
DIVISION OF EFS  
UNIT OUTLINE  
ACCG860 Quantitative Methods**

**Year and Semester: 2008 Trimester 1**

**Unit convenor: Michael Petersons**

Students in this unit should read this unit outline carefully at the start of semester. It contains important information about the unit. If anything in it is unclear, please consult one of the teaching staff in the unit.

**ABOUT THIS UNIT**

- Unit Value: Three (3) credit points
- This unit aims to convey an understanding of the quantitative and statistical techniques that are frequently used in accounting and financial studies. The techniques require logical reasoning, objective analysis and inference based on empirical evidence. Essential statistical techniques such as probability, sampling, measurement, correlation, regression, analysis of variance, non parametric methods and hypothesis testing are covered. Use is made of statistical packages to analyse data and produce statistical reports.
- Unit rationale: Decision making using inferential techniques is an integral part of modern business practice. This unit provides the background for making informed decisions from incomplete data.

**TEACHING STAFF**

- Convenor Michael Petersons  
mpeterso@efs.mq.edu.au
- Other staff  
Bala Pasu Nan Carter

## CLASSES

STREAM	LECTURES	TUTORIALS
<b>A</b>	<b>Tuesday 12</b>	<b>Tuesday 1 -3</b>
		E8 computer lab
<b>B</b>	<b>Tuesday 3</b>	<b>Tuesday 4 - 6</b>
		E8 computer lab
<b>C</b>	<b>Wednesday 9</b>	<b>Wednesday 10 - 12</b>
		E8 computer lab
<b>D</b>	<b>Wednesday 2</b>	<b>Wednesday 3 - 5</b>
		E8 computer lab
<b>E</b>	<b>Wednesday 6</b>	<b>Wednesday 7 - 9</b>
		E8 computer lab
<b>F</b>	<b>Thursday 9</b>	<b>Thursday 10-12</b>
		E8 computer lab
<b>G</b>	<b>Thursday 12</b>	<b>Thursday 1 - 3</b>
		E8 computer lab

- Students will only be permitted to change classes if authorised by the program convenor and if a computer terminal is available in their desired class time.
- Attendance at tutorials is compulsory and will be monitored.  
Non submission of assignments or poor attendance will jeopardise your final grade.

## REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

- There are no set texts
- Lecture notes will be provided on each topic.
- Reference books available in the library are as follows:
  - A Data Based Approach to Statistics  
Iman R L (QA276.I2.I48)
  - Introduction to the practice of Statistics  
Moore D and McCabe G (QA276.I2.M65)
  - Economic and Business Statistics: Practical Applications with Minitab and SAS  
Round D and Arnold A (QA276.4.R67)
  - Introduction to Business Statistics  
Brite R (HA29.B8265)
  - Modern Business Statistics  
Freund J and Williams (HA29.F684)
  - Statistics for Business and Economics  
Shao S (HA29.S5587)
  - Introductory Statistics for Business and Economics  
Wonnacott T and R (QA29.W622)

## UNIT WEB PAGE

- There is no web page for this unit.

## LEARNING OUTCOMES

- The learning outcomes of this unit are that:

Students must be able to

- Interpret questions which require statistical analysis and recognise the appropriate statistical procedure to apply in each case.
- Interpret the statistical output and write up conclusions based on the output which are relevant to the original problem that was posed.

Individual behavioural objectives are available with each lecture topic.

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:

*Foundation skills of literacy, numeracy and information technology;*  
*Communication skills;*  
*Critical analysis skills;*  
*Problem-solving skills;*  
*Creative thinking skills.*

## TEACHING AND LEARNING STRATEGY

- Students must attend one lecture each week at which new material is introduced and one two hour practical class in the computer lab during which you will be expected to work on problems based on the material presented in the lecture and write up relevant conclusions or summarise your findings.
- Students are expected to have read through the material to be covered using the lecture notes which will have been distributed in class in the previous week
- Week-by-week list of the topics to be covered is available at the end of this document.

## Assignments

Each assignment requires you to assimilate the procedures, content and methodology covered in the preceding weeks and apply them to solving the problems presented. If you have satisfied all the behavioural objectives for a topic you will be able to successfully complete the assignment based on that weeks' topic. The feedback from your marked assignment and the model solution presented should be used to remediate any part of the subject matter with which you are having difficulty.

- There will be four assignments all of equal value.

**Assignments are worth 20% of the final assessment**

The assignments are due by the end of your tutorial in weeks 3, 6, 8 and 11.

They must be submitted at the end of the tutorial in the week they are due to receive credit. **Late assignments will not be accepted without written evidence** of illness or misadventure. No assignments can be accepted for credit after assignments have already been handed back to students. Assignments will be returned during the practical class in the week after they are submitted.

**Non submission of assignments may result in exclusion from the unit and a subsequent fail grade being awarded.**

The computer package should be used wherever possible to complete each assignment which must be presented as a word processed document.

- You must fill out the appropriate summary sheet and attach it to the front of your assignment to obtain any marks.

**The assignments will be given a grade of HD or D which will be awarded 5 marks, Cr which will be awarded 4 marks, P which will be awarded 3 marks or F which will be awarded 2 marks. A non serious attempt will be given zero marks.**

**The assignment you submit must be your own work.  
Plagiarism can lead to a fail grade for the whole unit.**

## Examinations

The final examination enables you to display your assimilation and understanding of the behavioural objectives for each topic and to demonstrate your analytic skills in identifying the statistical methods appropriate to solving problems in a wider context. The Examination will be held after the 11<sup>th</sup> of April..

**80% of the assessment will be allocated to the final examination.**

### NOTE:

To be awarded an appropriate grade students are expected to perform to a sufficient standard in the final examination to satisfy the grade definitions, **irrespective** of the marks obtained for assignments. **You must pass the final exam to pass the unit.**

**The final examination will be held in a computer room.**

- **You may bring to the exam two (2) A4 pages of notes written on both sides.**
- **You will have access to a computer to complete the examination.**

**Note that dictionaries are not allowed in the exam.**

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.

## **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).

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.

The process of scaling does not change the order of marks among students. A student who receives a higher raw mark than another will also receive a higher final scaled mark.

For an explanation of the policy 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>.

Trimester One 2008

### COURSE OUTLINE

Week commencing	Week	Topics Covered
21 January	1	Data Collection and Display
28 January	2	Numerical Summaries
4 February	3	Probability and Distributions
11 February	4	Sampling Distributions
18 February	5	Estimation
25 February	6	Testing Hypotheses- Single Samples
3 March	7	Testing Hypotheses - Two Samples
10 March	8	Correlation and Regression
17 March	9	Correlation and Regression
24 March	10	Analysing Counted Data
31 March	11	Analysis of Variance
7 April	12	Non parametric Methods