

**ACCG860**  
**Quantitative Methods****UNIT OUTLINE****Year and Semester:** 2009 Trimester 1**Unit convenors:** Anne Karpin and Jenny Middledorp

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 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. A statistical package is used to analyse data and produce statistical reports.

**TEACHING STAFF**

Anne Karpin  
[anne.karpin@mq.edu](mailto:anne.karpin@mq.edu)

Jenny Middledorp  
[jenny.middledorp@mq.edu.au](mailto:jenny.middledorp@mq.edu.au)

Nan Carter  
[nan.carter@mq.edu.au](mailto:nan.carter@mq.edu.au)

Bala Pasu  
[bpasu@efs.mq.edu.au](mailto:bpasu@efs.mq.edu.au)

**CLASSES**

- 3 hours face-to-face teaching per week: 1 x 1 hour lecture and 1 x 2 hour practical
- The timetable for classes can be found on the University web site at:  
<http://www.timetables.mq.edu.au/>
- Students will only be permitted to change classes if authorised by the administrative staff in accounting and if a computer terminal is available in their desired class time.

## REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

There are no set texts. Lecture notes will be provided on each topic and will be posted on Blackboard. Students should make sure they download the lectures each week and bring them to class.

Reference books available in the library are as follows:

- Introduction to the Practice of Statistics by Moore D and McCabe G
- A Data Based Approach to Statistics by Iman R L
- Economic and Business Statistics: Practical Applications with Minitab and SAS by Round, D and Arnold, A
- Introduction to Business Statistics by Brite R
- Modern Business Statistic by Freund J and Williams
- Statistics for Business and Economics by Shao S
- Introductory Statistics for Business and Economics by Wonnacott T and R

## UNIT WEB PAGE

The web page for this unit can be found at:

[http://www.accg.mq.edu.au/postgraduate/course\\_units/accg860](http://www.accg.mq.edu.au/postgraduate/course_units/accg860)

## LEARNING OBJECTIVES AND OUTCOMES

An important objective of the unit is to develop written and verbal communication skills of students. In particular, students will:

- Interpret questions which require statistical analysis and recognise the appropriate statistical procedure to apply in each case.
- Interpret statistical output and write up conclusions based on the output which are relevant to the original problem.
- Develop generic skills, in particular analytical, critical, problem-solving, creative thinking and interpersonal skills.

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;*

## TEACHING AND LEARNING STRATEGY

New material will be introduced in each lecture. During practical classes students are expected to work on problems based on the material presented in lectures and to write up relevant conclusions and summarise results. Students are expected to have read through the material to be covered in lectures each week. Course material will be made available online using Blackboard which can be accessed at:

<http://learn.mq.edu.au>.

A week-by-week list of the topics to be covered is available at the end of this document.

## RELATIONSHIP BETWEEN ASSESSMENT AND LEARNING OUTCOMES

The following weightings apply for unit assessment:

	<u>%</u>
Diagnostic Test	5
Assignments	15
Class Test	20
Final Examination	<u>60</u>
	<u>100</u>

### Diagnostic Test

This diagnostic test, which students will be required to complete in Week 4, is designed to give feedback to students regarding their progress. It will cover materials presented in the first three weeks.

### Assignments

Each assignment requires students to assimilate the procedures, content and methodology covered in the preceding weeks and to apply these to solving the problems presented. If students have satisfied all the objectives for particular topics they will be able to successfully complete the assignment work based on these topics. Model solutions will be provided.

There will be three assignments of equal value. They will be posted on Blackboard two weeks before their due dates. Each assignment is worth 5% of the final assessment and may be completed in groups of up to three students enrolled in the same stream. Assignments must be presented as word processed documents. Assignments are due by Monday 10.00am in weeks 5, 8 and 11 and should be submitted in the appropriate box in ERIC. Late assignments will not be accepted without written evidence of illness or misadventure. Assignments will be returned to students within two weeks of submission.

It is important to note that we encourage students to work in groups of up to three people, where one assignment should be submitted per group. However, each assignment which is submitted should be the work of one group of students only. If there is evidence of collusion between assignment groups, this will be considered as plagiarism. Under these circumstances, all students involved will receive a mark of zero for the assignment.

### Class Test

Students will be required to sit a class test in Week 9 which will cover all material up to and including Week 7. The class test is designed to reinforce concepts introduced in the first half of the unit.

### Examination

A three-hour written final examination will be held during the examination period.

Students may bring into the exam two (2) A4 pages of notes hand written on both sides. 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.

### **DETERMINATION OF OVERALL GRADE**

60% of the assessment will be allocated to the final examination. Students must pass the final exam in order to pass the unit. *Note:* To be awarded a particular grade students are expected to perform to the required standard in the final examination to satisfy the grade definitions, irrespective of the marks obtained for coursework. The assessment contributions are outlined on page 3.

### **STUDENT SUPPORT SERVICES**

Macquarie University provides a range of Academic Student Support Services. Details of these services can accessed at:

<http://www.student.mq.edu.au>

**Trimester One 2009  
COURSE OUTLINE**

<b>Week commencing</b>	<b>Week</b>	<b>Topics Covered</b>	<b>Assessment Due</b>
19 January	1	Data Collection and Display	
26 January	2	Numerical Summaries	
2 February	3	Probability and Distributions	
9 February	4	Sampling Distributions	Diagnostic Test
16 February	5	Estimation & Confidence Intervals	Assignment 1
23 February	6	Testing Hypotheses - Single Samples	
2 March	7	Testing Hypotheses - Two Samples	
9 March	8	Correlation and Regression I	Assignment 2
16 March	9	Correlation and Regression II	Class Test
23 March	10	Analysing Categorical Data	
30 March	11	Analysis of Variance	Assignment 3
6 April	12	Non-parametric Methods	