



DIVISION OF ECONOMIC AND FINANCIAL STUDIES

GRADUATE ACCOUNTING
AND COMMERCE CENTRE

STAT888 APPLIED BUSINESS TECHNIQUES

FIRST SEMESTER 2005

UNIT OUTLINE

Student Resource Centre
Division of Economic & Financial Studies
MACQUARIE UNIVERSITY
Unit Convenor: Kj Byun

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

Stat 888 is a 4 credit point postgraduate unit especially designed for students obtaining a Master of International Business or Master of Commerce in Information Systems and Technology.

This unit provides the skills necessary to apply the techniques of quantitative analysis in organisational decision-making situations. The approach taken consists of defining the business problem, developing a model, acquiring the necessary data, developing and analysing the solution, and implementing the results. Practical examples taken from a wide variety of business situations will be used and case studies discussed with the emphasis being on applications of the techniques rather than the theory.

The solutions to many of the problems will be found using the program *QM for Windows* (supplied with the textbook) and Microsoft Excel. The aim of the unit is to provide an appreciation of information requirements within the business and competence in the analysis of management decisions.

Lecture notes including many exercises and examples will be provided.

TEACHING STAFF

- KJ Byun Office: C5C 369 Tel: 9850 7473 E-mail:kbyun@efs.mq.edu.
 Consultation Hours:
- Tarn Duong Office: C5C 467 Tel: 9850 8584 E-mail:tduong@efs.mq.edu.au
 Consultation Hours:

Please note that any communication with staff via email will only be conducted using your University email address.

CLASSES

- Length: One 3 hour lecture beginning in Week 1
- Location: W5A T1
- Time: Wednesday 3pm – 6pm

The timetable for classes can be found on the University web site at:

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

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

- Required Text: Render, B. and R.M. Stair, *Quantitative Analysis for Management* (8th Edition), Prentice Hall, 2003

Ensure the text you buy has a CD containing the program 'QM for Windows'.

LECTURE SCHEDULE (D1 2005)

<i>Week</i>	<i>Date</i>	<i>Topic</i>	<i>Lecturer</i>	<i>Chap.</i>
1	2 March	Sampling Use of computers Descriptive Statistics	Kj	1.1 – 1.7
2	9 March	Estimation Confidence Intervals Discrete Distributions Expected Values Binomial and Poisson	Kj	2.8 2.9 2.10 2.13
3	16 March	Simulation Random Numbers Monte Carlo techniques	Kj	15.1. – 15.10
4	23 March	Project Planning Arrow diagrams Gantt Chart Microsoft Project 2000/2003	Kj	13.1. – 13.4
5	30 March	Critical Path Method (CPM) Program Evaluation and Review Technique (PERT)	Kj	13.1. – 13.4 Appendix 13.1
6	6 April	<i>Mid Semester Test (Topics from Week 1 – Week 5)</i>		
7	13 April	Linear programming assumptions Formulation of problems Graphical solutions	Tarn	7.1 – 7.6 7.4
Mid Semester Break				
8	4 May	Linear and integer programming Special cases The simplex method Integer programming	Tarn	7.7
9	11 May	Linear and integer programming Sensitivity and duality Business applications	Tarn	8.1 – 8.8 7.8
10	18 May	Inventory systems Economic Order quantity Reorder point (lead time) Quantity discount model	Tarn	6.1 – 6.7 Appendix 6.1
11	25 May	Queuing systems Simple queues Multiple –channel queues Restricted queues	Tarn	14.1 -14.6 Appendix 14.1
12	1 June	Revision Lecture Course Summary	Kj & Tarn	All topics
13	8 June	FINAL EXAMINATION (During lecture time)		

A4 size on which you may write or type anything you like on **both sides**. No other notes or books are allowed.

The University Examination period in First Half Year 2005 is from 15th – 29th 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.

<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.

Note that there is a Division policy regarding requests for special consideration for examinations and the granting of supplementary examinations which can be found at:

<http://www.efs.mq.edu.au/supexams.htm>

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/>

**DO NOT REMOVE
THE STAPLES**