



## **Course Outline 2017**

### **BUSADMIN 773: MODELLING and ANALYSIS FOR MANAGEMENT (15 POINTS)**

**Quarter 1 (1172)**

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#### **Course Prescription**

The use of quantitative models to facilitate managerial decision-making through systematic analysis. It covers an overview of quantitative modelling techniques and their application to business problems. The course is multi-disciplinary in nature and links to a number of functional areas including finance and accounting, marketing and operations management.

#### **Programme and Course Advice**

As a module of the MBA, this course is designed to provide more of the quantitative building blocks of business and management. It is also useful for students completing any of the specialist diplomas.

Restriction: BUSADMIN 763

#### **Goals of the Course**

The goals are to:

- Understand the role of quantitative thinking in successfully competing in today's global business environment.
- Recognise and formulate decision models as part of management problem solving using quantitative methods.

#### **Learning Outcomes**

By the end of this course it is expected that the student will be able to:

1. understand the nature of a business problem and identify suitable models and quantitative tools;
2. have acquired analytical thinking skills and an understanding of the concepts, tools and practices of modelling and analysing managerial decisions;
3. have an appreciation of the use of modelling and analysis approaches for people, organisations, and society;
4. have the skills necessary for the analysis of small to medium data sets of moderate complexity;
5. extract important patterns from sets of data, transform them into information and display the results effectively; and
6. possess the capability to build a model that balances comprehensiveness and applicability for of the business problem being addressed.

## Content Outline

- Module 1 – Introduction to modelling and analysis for management;  
Introduction to statistical inference;
- Module 2 – Statistical Inference;
- Module 3 – Regression;
- Module 4 – Introduction to Optimisation;  
Linear programming examples;
- Module 5 – Sensitivity Analysis;  
Modelling Optimisation Problems in Excel

## Learning and Teaching

BUSADMIN 773 is offered at the Auckland City campus. The class will meet in six hour blocks fortnightly. Coursework consists of one written assignment, one mid-term test and one final two-hour test.

The average workload for the course is expected to be 2 – 3 hours for every hour of class contact time. To make the class more valuable, you should have read and thought through the material assigned in the content outline.

## Teaching Staff

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## Learning Resources

The prescribed text is Curwin, J. & Slater, R. (2013). *Quantitative Methods for Business Decisions* (7th ed.). London: Thomson. (Additional material will be made available in class).

We will make extensive use of CANVAS for communication and distribution of class related materials. This is an online course management system that all students will have access to. You should familiarise yourself with the use of CANVAS before the first day of class.

## Assessment

Term Test	30%
Assignment	30%
Final Test (2 hours)	40%
Total	<hr/> 100%

Further details on these assessments will be provided at the first class meeting.

The broad relationship between these assessments and the core learning outcomes is as follows:

Learning Outcome	Term Test	Assignment	Final Test
1	X	X	X
2	X		X
3	X		X
4	X	X	X
5	X	X	X
6	X	X	X

## CHEATING AND PLAGIARISM

The University of Auckland regards cheating as a serious academic offence.

Plagiarism is a form of cheating. In coursework assignments submitted for marking, plagiarism can occur if you use the work and ideas of others without explicit acknowledgment. Work can be plagiarised from many sources, including books, journal articles, the internet, and other students' assignments. A student's assessed work may be reviewed against electronic source material using computerised detection mechanisms. Upon reasonable request, students may be required to provide an electronic version of their work for computerised review.

The way of avoiding plagiarism is to reference your work properly. If you are in doubt about how to reference properly, ask someone – your lecturers, tutors and the Student Learning Centre are good places to start. Please refer to the following website for further information about academic referencing: [www.cite.auckland.ac.nz/](http://www.cite.auckland.ac.nz/)

The document *Guidelines: Conduct of Coursework* provides further advice on how to avoid plagiarism. It can be found at: [www.business.auckland.ac.nz/conductcoursework](http://www.business.auckland.ac.nz/conductcoursework)

The penalties for plagiarism can be severe, including losing some or all of the marks for the assignment. Major offences can be sent to the University's Discipline Committee, where further penalties can be imposed.