



BUSINESS SCHOOL

Course Outline 2019

BUSADMIN 763: QUANTITATIVE ANALYSIS (15 POINTS)

Quarter 4 (1198)

Course prescription

Quantitative analysis theory, techniques, and tools to support and facilitate managerial decision-making. Includes financial, statistical, and operational modelling.

Course advice

You cannot enroll in this course if you have taken or intend to take the following courses:

Restriction: BUSADMIN 773

Goals of the course

To provide a firm methodological foundation to courses within the Graduate School of Management that use quantitative methods.

- Apply quantitative approach to successfully compete in today's global business environment.
- Recognise and formulate decision models and methods for a quantitative analysis of data in a variety of management scenarios.

Learning outcomes (LO)

By the end of the course, it is expected that students will be able to:

#	Learning outcome	Graduate profile capability*
LO1	Formulate a problem and conceptualise a solution strategy rooted in multivariate statistical analysis.	1. Disciplinary knowledge and practice
LO2	Demonstrate skills necessary to understand and analyse small to medium data sets of moderate complexity.	2. Critical thinking 3. Solution seeking
LO3	Extract the important patterns from sets of data, transform them into information and display the results effectively.	1. Disciplinary knowledge and practice 4b. Communication (Written)

#	Learning outcome	Graduate profile capability*
LO4	Develop models and communicate solution approaches for decision making in organisations.	3. Solution seeking 4a. Communication (Oral)
LO5	Demonstrate analytical thinking skills and an understanding of the concepts, tools and practices of modelling and analysing managerial decisions.	2. Critical thinking 3. Solution seeking
LO6	Propose and assess a variety of quantitative solution approaches to business problems.	1. Disciplinary knowledge and practice 4c. Engagement (Collaboration)

* See the graduate profile this course belongs to at the end of this course outline.

Content outline

Week	Topic	Relevant learning resources/activities	Assessment due this period
Week 1 Sept 17 th	Introduction to Quantitative Analysis	Chapters 2, 7 Relevant reading material will be posted on Canvas.	
Week 2 Sept 24 th	Point Estimation, Hypotheses Testing	Chapters 11, 12 Relevant reading material will be posted on Canvas.	
Week 3 Oct 1 st	Hypothesis Testing, Introduction to Regression	Chapters 13 Relevant articles and reading materials will be posted on Canvas.	
Week 4 Oct 8 th	Linear Regression	Chapter 15 Relevant articles and reading materials will be posted on Canvas.	Assignment 1 is due.
Week 5 Oct 15 th	Test 1		Test 1
Week 6 Oct 22 nd	Multiple Regression	Chapter 16 Relevant articles and reading materials will be posted on Canvas.	
Week 7 Oct 29 th	Introduction to Optimisation	Chapter 18 Relevant articles and reading materials will be posted on Canvas.	
Week 8 November 5 th	Optimisation-Sensitivity Analysis	Chapter 18	

Week	Topic	Relevant learning resources/activities	Assessment due this period
		Relevant articles and reading materials will be posted on Canvas.	
Week 9 November 12 th	Optimisation-Problem Solving	Chapter 21 Relevant articles and reading materials will be posted on Canvas.	Assignment 2 is due.
Week 10 November 19 th	In-Class Assignment		In-Class Assignment
Week 11 November 26 th	Class Project Report		Class Project Report is due

Learning and teaching

Class meetings will be devoted primarily to the discussion of assigned reading for the day (see Content Outline). The student must come to the lectures having read the assigned material and be prepared to participate.

The use of laptops is encouraged during the lectures and will be required for the test. The preferred software on the laptop is Excel 2016. During lectures (but not the test or the in-class assignment) you may share laptop computers with other students if you so desire.

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 given above.

All lectures will be interactive in nature with elements of group work and a high degree of personal involvement and contributions – “class participation” – will be expected of all enrolled.

Tutorials to provide problem-based learning will be scheduled for this course. The meeting times will be announced in class. Attendance is optional.

Workload:

Contact hours	36
Preparatory reading	24
Self-study	90
Total hrs	150

Teaching staff

Associate Professor Arvind Tripathi
 Email: a.tripathi@auckland.ac.nz
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 Office: 260-484 (by appointment)

Learning resources

The primary resources for the course are: The **optional (not compulsory)** text is Curwin, J. & Slater, R. (2013). Quantitative Methods for Business Decisions (7th ed.). London:

Thomson. The course is based on course material available in this text book. Canvas: The primary method, by which you will receive course information, handouts, assignments, etc.

Assessment information

Assessment task	Weight %	Group and/or individual	Submission
Assignment 1	15%	Individual	Submission on Canvas
Assignment 2	15%	Individual	Submission on Canvas
Test 1	30%	Individual	Submission on Canvas
In-Class Assignment	20%	Individual	Submission on Canvas
Class Project	20%	Group	Submission on Canvas

Pass requirements

Weighted average of all assessments results in a C- or above.

Description of assessment tasks

Assessment task	Learning outcome to be assessed
Assignment: Assignment 1 and 2 aim to test students' understanding of the course material and ability to use software discussed in computer lab sessions.	LO1, LO2, LO3 and LO4
Test and In-Class Assignment: Both will be based on material discussed in class and on assignments.	LO1, LO2, LO3, LO4 and LO5
Class Project: Students need to work in groups to analyse the business problem and write a report.	LO1, LO3, LO5 and LO6

Inclusive learning

Students are urged to discuss privately any impairment-related requirements face-to-face and/or in written form with the courses convenor/lecturer and/or tutor.

Academic integrity

The University of Auckland will not tolerate cheating, or assisting others to cheat, and views cheating in coursework as a serious academic offence. The work that a student submits for grading must be the student's own work, reflecting his or her learning. Where work from other sources is used, it must be properly acknowledged and referenced. This requirement also applies to sources on the worldwide web. A student's assessed work may be reviewed against electronic source material using computerised detection to provide an electronic version of their work for computerised review.

Student feedback

The University of Auckland evaluates the quality of teaching and of courses by using the Summative Evaluation Tool, or SET. Summative evaluation is formal, summative evaluation of teaching undertaken according to University policy and is conducted at the end of a semester/quarter through the use of the formal University SET instruments.

Summative evaluation is used by teachers to reflect on their teaching practice, and is also used by the University for quality assurance of teaching and courses.

In the event of an unexpected disruption

We undertake to maintain the continuity and standard of teaching and learning in all your courses throughout the year. If there are unexpected disruptions, the University has contingency plans to ensure that access to your course continues and your assessment is fair, and not compromised. Some adjustments may need to be made in emergencies, In the event of a disruption, the University and your course coordinators will make every effort to provide you with up to date information via Canvas and the University website.

Graduate profile for Postgraduate Diploma in Business

The following six themes represent the capabilities that the Business School seeks to foster in all of its graduates. The development of these capabilities does not come all at once, but rather is expected to build from year to year. Each course is not expected to contribute to all capabilities, but each course will have its own goals and learning outcomes that relate to the overall development of this profile.

Graduate Profile	
1. Disciplinary knowledge and practice	Graduates will be able to demonstrate advanced knowledge of general management theory and apply this effectively in a range of contexts.
2. Critical thinking	Graduates will be able to effectively evaluate and synthesise evidence from multiple sources to develop coherent and evidence-based arguments.
3. Solution seeking	Graduates will be able to frame and analyse complex problems, develop practical solutions, and understand the impact and implications of planned implementation.
4. Communication and engagement	Graduates will be able to work effectively in teams and engage varied audiences by communicating professionally using multiple formats.
5. Independence and integrity	Graduates will be able to engage in independent and ethical decision-making and behaviour, demonstrating self-reflection and self-management in complex and ambiguous situations.
6. Social and environmental responsibility	Graduates will recognise, in relation to their field, the potential significance of the principles underpinning the Treaty of Waitangi and sustainability, and demonstrate capability to shape business practice accordingly where appropriate.