THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
NEW ZEALAND

BUSINESS SCHOOL

Course Outline 2017
INFOSYS 750: RESEARCH METHODS – QUANTITATIVE (15 POINTS)
Semester 1 (1173)

Course Prescription
A comprehensive review of the methodological issues in systems research, including detailed coverage of univariate and multivariate data analysis.

Programme and Course Advice
Prerequisite: Any Stage II Statistics or equivalent Univariate Statistics course (consult the relevant Graduate Adviser in the Faculty of Business and Economics)

Goals of the Course
This course is an introduction to a particular set of research methods applicable to students intending to pursue research in information systems and/or operations management. The course is one of a two-part sequence on research methodology (the other being INFOSYS 751). Specifically, in this course, we will focus on the application of univariate and multivariate statistical techniques for the analysis of data that has been gathered in the context of a research problem.

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

1. formulate a problem and conceptualise a solution strategy rooted in multivariate statistical analysis;
2. select an appropriate set of statistical tests to apply in a given situation;
3. read the research literature and understand the use of statistical methods as applied to management research; and
4. Achieve a reasonable level of competence in the use of statistical software.

Content Outline (Tentative)

Date	***Topic***	***Reading***
March 8	Introduction to the course, facilities, software; review of basic statistical inference	Chapter 1; 2
March 15	Hypotheses testing	Class handout
March 22	Introduction to Regression Analysis	Chapter 4
March 29	Multiple Regression Analysis	Chapter 4
April 5	Logistic Regression **Assignment Part A is due**	Chapter 6
April 12	**TEST 1**	
May 3	Analysis of Variance, ANCOVA	Chapter 7
May 10	Multiple Analysis of Variance	Chapter 7
May 17	Factor Analysis	Chapter 3
May 24	Factor Analysis	Chapter 3
May 31	Structural Equation Modelling **Assignment Part B is due**	Chapter 12
June 7	**TEST 2**	

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 in the discussion in a meaningful manner. Occasionally we will also read published articles from the research literature to learn about the application of various techniques. These articles will be made available to you during the semester.

Teaching Staff

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Learning Resources

The primary resources for the course are:

- Hair, J. F., R. E. Anderson, B. J. Babin, and W. C. Black, *Multivariate Data Analysis*, Prentice- Hall, New York, 7th edition. This is a required text book for this course.
- Journal articles on various topics – specific articles will be indicated during the course.
- Software: The primary software package that we will use in this course is SPSS. You are required to use this package to do your assignments. The software will be available on the network. There are several excellent online tutorials that will help you get started with using SPSS. You should use those extensively. You should also look for books about using SPSS in the library.
- Tutorials: Tutorials will be scheduled to help you work with the software. You may also consult the tutor for help with the use of the software.
- Books in the University Library that cover topics on univariate statistics, may help those who need support in basic statistical hypothesis testing, correlation & regression, analysis of variance and other areas. You should use this facility extensively to refresh your knowledge on this topic.
- Canvas: The primary method, by which you will receive course information, handouts, assignments, etc., will be through the use of the Canvas system.

Assessment

You will be evaluated on the following components:

Tests	70%
Assignment	30%
Total	100%

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

Learning Outcome	Tests	Assignment
1	X	X
2	X	X
3	X	X
4		X

Class Meetings

Time: Wednesday 3:00– 6:00 PM
Room: OGGB Room 040C (260-040C)
Office Hours: Wednesday 2:00-3:00 PM

Inclusive Learning

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

Plagiarism and Cheating

Policies for plagiarism and cheating

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 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 world-wide web. 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 University of Auckland has policies in place to deal with cases of plagiarism and cheating. Your work is subject to these policies, published on the websites:
http://www.auckland.ac.nz/uoa/about/teaching/plagiarism/plagiarism.cfm

Any student in breach of these policies will receive serious penalties, i.e. in principle **0** marks, and further actions may be taken in extreme cases.