

Statistics for Managers
MNGT 4630
(Core)

Dr Paul Walsh

Session 1, 2008

Class Dates: 27-30 Mar; 10-13 April
Examination: 7 May (Wed)
Payment Due: 27 Feb 2008

Course aims / objectives:

At no time in our history have managers had greater access to data about the performance of their firms. Data warehouses, e-commerce solutions, employee and customer surveys, financial reporting, Six Sigma and transaction databases are providing managers with significant opportunities to manage with data. But have the skills of managers kept pace? Do managers know how to analyse data, to report and argue confidently about what the data is suggesting? Except in the most straightforward of cases, the answer is probably no. Can they navigate a statistical package on their PCs with ease, selecting the tools that analyse performance results and model cause-and-effect? Except for basic spreadsheet functions, the answer is again probably no.

This course prepares students in understanding and applying the concepts and tools of data analysis. It develops the skills to confidently apply statistical methods to performance problems inside their companies. Areas such as marketing, human resource management, operations, information systems and accounting provide rich opportunities for the application of statistics and modelling. This course acts as a service course for analysing data from all areas of business.

This course will combine theory from the course notes with problem-solving exercises using the statistical package StatTools, an Excel Add-In. Emphasis will be placed on the selection of the appropriate statistical technique to solve business problems and the interpretation of the associated theory.

Assessment:

2 Group assignments with individual weighting: 50%

Final examination (open book, two & one half hours): 50%

Award of a Fail Grade

Any student not submitting both assignments will automatically receive a Fail grade.

Course details / modules:

Day 1: Friday, 27 March 2008 (7.00pm – 10.15pm)

- Overview of Course
- StatTools™ Tour
- Unit 1: Descriptive Statistics

Day 2: Saturday 28 March 2008 (2:00pm – 8.00pm)

- Unit 2: Continuous Random Variables
- Unit 3: Hypothesis Testing and Confidence Intervals

Day 3: Sunday 29 March 2008 (10:00am – 7:00pm)

- Unit 4: Simple Linear Regression Models Part I
- Unit 5: Simple Linear Regression Models Part II

Day 4: Monday 30 March 2008 (7:00pm – 10:15pm)

- Unit 5: Simple Linear Regression Models Part II (continued)
- Assignment 1 discussion

Day 5: Friday, 10 April 2008 (7:00pm – 10:15pm)

- Unit 6: Multiple Linear Regression Models

Day 6: Saturday 11 April 2008 (2:00pm – 8:00pm)

- Unit 6: Multiple Linear Regression Models (continued)
- Unit 7: Time Series Models

Day 7: Sunday 12 April 2008 (10:00am – 7:00pm)

- Unit 8: Models with Both Time Series & Regression Variables
- Assignment 2 discussion
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Day 8: Monday, 13 April 2008 (7:00pm – 10:15pm)

- Unit 9: Course Summary
- Exam Review

Course materials and text/s:

COMPULSORY ***

Albright, S.C., Winston, W.L. & Zappe, C.S. 2006, *Data Analysis & Decision Making with Microsoft Excel*, 3rd ed., Thompson South-Western, ISBN 0-324-40082-9.

Note: The textbook is needed to obtain a licence to use the StatTools™ software.

A set of Course Readings will be provided.

Please bring your **Course Notes** to the Computer Lab so you can work through the material and exercises in each unit.

Other references:

Optional: For students who have had no exposure to statistics:

Rowntree, D. (1991 Reprint)
Statistics Without Tears: A Primer for Non-Mathematicians, Penguin
ISBN 0-14-01.3632-0

Albright, S.C., 2003, *Learning Statistics with StatTools*, Palisade Corporation. Available at:
<http://www.palisade.com.au>

Lecturer details:

Dr Paul Walsh
c/- AGSM
University of New South Wales
SYDNEY, NSW, 2052

Tel: +61 412 896 866
Email: walsh.paul@optusnet.com.au