FIT1006
Business information analysis

Unit Guide

Semester 2, 2009

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Table of Contents

FIT1006 Business information analysis - Semester 2, 2009

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Introduction

Welcome to FIT1006 Business Information Analysis for semester 2, 2009. This unit is designed to give students an introduction to statistical and quantitative methods within a business-related framework and to provide students with a sound foundation for more advanced statistical and quantitative studies. The course will provide opportunities for the student to gain skills in the presentation of business and economic data, the use of frequency distributions, measures of central tendency and dispersion, principles of probability, use of probability distributions, sampling theory, estimation, hypothesis testing, regression analysis, the use of indices and forecasting methods.

Unit synopsis

This unit is designed to give students an introduction to statistical and quantitative methods within a business-related framework and to provide students with a sound foundation for more advanced statistical and quantitative studies. The unit will provide opportunities for the student to gain skills in the presentation of business and economic data, the use of frequency distributions, measures of central tendency and dispersion, principles of probability, use of probability distributions, sampling theory, estimation, hypothesis testing, regression analysis, the use of indices and forecasting methods.

Learning outcomes

At the completion of this unit, students will have knowledge of:

1. typical sources of data such as: market research surveys, mandatory reporting, census and Consumer Price Index, commercial sources;
2. sampling techniques, sampling error.

At the completion of this unit, students will have understanding of:

3. fundamental statistical concepts such as: probability, mathematical expectation, the Central Limit Theorem, hypothesis testing, correlation and regression.

At the completion of this unit, students will have skills in:

4. techniques for basic statistical analysis including: the calculation of summary statistics, graphic display of data including stem-and-leaf plots, boxplots and histograms;
5. calculations required for problems based on concepts given in point-3;
6. calculation of probabilities by: direct calculation from probability distribution, use of tables and spreadsheets;
7. the use of computer software (eg SYSTAT) to perform all statistical techniques covered;
8. communicating the results of descriptive statistical analysis through a written report.

Contact hours

3 x contact hrs/week

Workload

The workload commitment for this unit is: two one-hour lectures per week, one one-hour tutorial per week, approximately nine hours private study and reading per week. Students may need to use the university laboratories to access statistical software during private study.

Unit relationships

Prohibitions

ETC1000, ETC1010, ETC2010, ETF2211, ETW1000, ETW1010, ETW1102, ETW2111, ETX1100, ETX2111, ETX2121, MAT1097.

Relationships

FIT1006 is a core unit in the Bachelor of Business Systems and the Bachelor of Business Information Systems.

You may not study this unit and ETC2010, ETF2211, ETW1000, ETW1010, ETW2111, ETW1102, ETX1100, ETX2111, ETX2121, MAT1097, ETC1000, ETC1010 in your degree.

Teaching and learning method

Statistical concepts and techniques will be introduced during lectures. Tutorials will be used to reinforce practical skills, which include manual calculations and the use of computer software for statistical analysis. Each lecture will be accompanied by designated reading which students are expected to have completed beforehand.

Timetable information

For information on timetabling for on-campus classes please refer to MUTTS, http://mutts.monash.edu.au/MUTTS/

Tutorial allocation

On-campus students should register for tutorials/laboratories using the Allocate+ system: http://allocate.cc.monash.edu.au/

Unit Schedule

Week	Topic	Key dates
1	Introduction. Surveys and data collection.	
2	Graphical presentation of data. Measures of centre.	
3	Measures of dispersion. Introduction to Excel and SYSTAT.	
4	Analysing Data. Writing a statistical report. Introduction to probability.	
5	Probability. Probability distributions.	
6	Binomial and Poisson distributions. The Normal distribution.	Assignment due during this week
7	Correlation and regression.	
8	Index numbers.	Test scheduled for this week
9	Theoretical sampling distributions.	
10	Estimation.	
Mid semester break		
11	Hypothesis testing.	
12	Categorical data. Time series analysis.	
13	Time series analysis. Revision.	

Unit Resources

Prescribed text(s) and readings

Selvanathan et al, "Australian Business Statistics", Abridged Fourth Edition, Nelson 2007.

Text books are available from the Monash University Book Shops. Availability from other suppliers cannot be assured. The Bookshop orders texts in specifically for this unit. You are advised to purchase your text book early.

Recommended text(s) and readings

Selvanathan et al, "Australian Business Statistics", Abridged Fourth Edition, Nelson 2007.

A good non-mathematical text is:Statistics Without Tears, Derek Rowntree, Penguin, Harmondsworth, 1981.

Required software and/or hardware

Students will use SYSTAT and Microsoft Excel to perform computer-based statistical calculations. Thes applications are available in the university's computer laboratories.

Equipment and consumables required or provided

On-campus students may use the facilities available in the computing labs. Information about computer use for students is available from the ITS Student Resource Guide in the Monash University Handbook.

Study resources

Study resources we will provide for your study are:

- Detailed lecture outline.
- Summary of each lecture's powerpoint presentation as a pdf.
- Tutorial outline and questions to be attempted as a pdf.
- Data files, sample Excel spreadsheet and SYSTAT files.
- Miscellaneous teaching applications.
- Solutions to selected exercises.

All the above resources are available on MUSO.

Assessment

Overview

Examination 60%, Mid-semester test 25%, Written report 15%. Students must pass the final examination in order to pass the unit.

Faculty assessment policy

To pass a unit which includes an examination as part of the assessment a student must obtain:

- 40% or more in the unit's examination, and
- 40% or more in the unit's total non-examination assessment, and
- an overall unit mark of 50% or more.

If a student does not achieve 40% or more in the unit examination or the unit non-examination total assessment, and the total mark for the unit is greater than 44% then a mark of no greater than 44-N will be recorded for the unit.

Assignment tasks

Assignment coversheets

Assignment coversheets are available via "Student Forms" on the Faculty website:
http://www.infotech.monash.edu.au/resources/student/forms/
You MUST submit a completed coversheet with all assignments, ensuring that the plagiarism declaration section is signed.

Assignment submission and return procedures, and assessment criteria will be specified with each assignment.

- **Assignment task 1**

  Title:
  Written assignment.
  Description:
  To be advised in lectures. Handout will be available on MUSO.
  Weighting:
  15%
  Due date:
  28th August

- **Assignment task 2**

  Title:
  Test during lecture.
  Description:
  To be advised in lectures.
  Weighting:
  25%
  Due date:
  11th September

Examination

- **Weighting:** 60%
  Length: 2 hours
  Type (open/closed book): Closed book

See Appendix for End of semester special consideration / deferred exams process.

Due dates and extensions

Please make every effort to submit work by the due dates. It is your responsibility to structure your study program around assignment deadlines, family, work and other commitments. Factors such as normal work pressures, vacations, etc. are not regarded as appropriate reasons for granting extensions. Students are advised to NOT assume that granting of an extension is a matter of course.

Students requesting an extension for any assessment during semester (eg. Assignments, tests or presentations) are required to submit a Special Consideration application form (in-semester exam/assessment task), along with original copies of supporting documentation, directly to their lecturer within two working days before the assessment submission deadline. Lecturers will provide specific outcomes directly to students via email within 2 working days. The lecturer reserves the right to refuse late applications.

A copy of the email or other written communication of an extension must be attached to the assignment submission.

Refer to the Faculty Special consideration webpage or further details and to access application forms:
http://www.infotech.monash.edu.au/resources/student/equity/special-consideration.html

Late assignment

Assignments received after the due date with out prior arrangement will be subject to a penalty of 1 mark per day including weekends. (The assignment is out of 20 marks.)

Return dates

Students can expect assignments to be returned within two weeks of the submission date or after receipt, whichever is later.

Appendix

Please visit the following URL: http://www.infotech.monash.edu.au/units/appendix.html for further information about:

- Continuous improvement
- Unit evaluations
- Communication, participation and feedback
- Library access
- Monash University Studies Online (MUSO)
- Plagiarism, cheating and collusion
- Register of counselling about plagiarism
- Non-discriminatory language
- Students with disability
- End of semester special consideration / deferred exams