

7908MKT

Understanding Data for Decision Making

Semester 1 2009

Academic Organisation:	Department of Marketing
Faculty:	Griffith Business School
Credit point value:	10
Student Contribution Band:	Band 3A
Course level:	Postgraduate
Campus/Location/Learning Mode:	Gold Coast / On Campus / In Person
Convenor/s:	Ms Helen Perkins (Gold Coast)
Enrolment Restrictions:	Restricted: Course must be listed in Program
This document was last updated:	5 December 2008

BRIEF COURSE DESCRIPTION

Business decision making is increasingly dependent on the preparation and understanding of quantitative information. The increasing emphasis on business metrics demonstrates the importance of quantifiable metrics in business. This course helps us improve the quality of our decisions through an improved understanding of the fundamental characteristics and meaning of the numbers that are commonly used in business, as well as the principles of effective communication when dealing with quantitative information. Rather than taking a dry mathematics or statistics approach to dealing with numbers, we emphasise the use and interpretation of statistical information by critical analysis and effective use of graphs and tables so that we can thoroughly understand best practice for different types of information and why.

Incompatible: 7008GSM Understanding Data for Decision Making.

All students are expected to begin studies at the first designated lecture for each course of their program in week one. Students who cannot attend must gain written approval from the MBA Director to continue in that semester.

This course is a restricted course. Enrolment is for MBA students only. Admittance by other graduate students enrolled in other graduate degrees requires approval by the MBA Director.

This course is normally offered at Gold Coast and Southbank - NIGHT

SECTION A – TEACHING, LEARNING AND ASSESSMENT

COURSE AIMS

Effective business managers need to understand quantitative information. The increasing emphasis on business metrics demonstrates the importance of numbers in business. This course helps us understand the fundamental characteristics and meaning of the numbers that are commonly used in business, as well as the principles of effective communication when dealing with quantitative information. Rather than taking a dry mathematics/statistics approach to dealing with numbers, we emphasise the use and interpretation of statistical information by critical analysis, and effective use of graphs and tables so that we can thoroughly understand best practice for different types of information and why.

In business and most other human pursuits we must deal with and communicate with numbers. A key part of this course is to explore the many ways that information can be represented and misrepresented. With such skills we can make better decisions, and help others make better decisions, and importantly avoid making costly wrong decisions. These issues are examined particularly in the context of the increasing importance of corporate responsibility and sustainability.

The course should form a valuable part of all other components of the postgraduate program, where it will be necessary to analyse data, and to integrate that data with other information from different sources, each with different levels of integrity. The importance of ethical responsibility in analysing, interpreting, and presenting business information for use in effective decision making is emphasised throughout this course.

LEARNING OUTCOMES

Upon successful completion of this course students should be able to:

1. Recognise different types of data and present such data in appropriate ways.
2. Translate data into information suitable for managers to understand patterns and interrelationships.
3. Understand sources of bias in data gathering, analysis, and interpretation, both intended and unintended.
4. Use data presentation tools to construct a compelling argument in support of, or in opposition to, a business proposal.
5. Understand how to interpret data presented in various ways and be able to draw meaningful conclusions for effective decision making.
6. Demonstrate a healthy scepticism of the application of quantitative information presented by authoritative bodies in society.
7. Understand the importance and implications of ethical conduct when analysing and interpreting data for use in corporate decision making.

CONTENT, ORGANISATION AND TEACHING STRATEGIES

The course is presented in a seminar and workshop format that includes formal seminar lectures and workshops with supporting learning activities and discussion. The role of the Course Convenor is to chair the workshops and present lectures. The greater role is to aid in the practical application of course concepts and act as facilitator for class discussions. To enhance learning, students are expected to be well prepared, and actively participate in, and contribute to, workshop activities.

There will be a total of 3 contact hours allocated each week for this course. Seminars lectures will be 2 hours long and will include teaching theoretical concepts and practical examples to illustrate these. Seminar lectures will be supplemented with a laboratory workshop of 1 hour each week. Workshops will include practical learning such as analysing some readily available numerical data focusing on statistical information, as well as some basic exercises with data files using software programs such as SPSS (and Excel). It is important you attend workshops from the beginning so that you do not fall behind.

Contact Summary

All assessment items are compulsory and attendance at lectures and workshops is expected.

CONTENT SUMMARY

The following topics will be covered in this course. The readings students need to undertake on a weekly basis are specified in the right hand column and will be available via Learning@Griffith. These are an important component of the course and will help you to more effectively understand the concepts so that you will be able to apply these in practical situations. It is important you keep up to date with these so you are prepared to contribute during lectures and tutorials. The sequence of lectures may be varied slightly at the discretion of the lecturer in consultation with students.

Topic	Lecture Content	Tutorial/Laboratory Content	Readings
1.	Course introduction. “Lies, damned lies, and statistics” - Disraeli Applications of numbers in business, politics, and everyday life. Ethics and business information Show me the <i>real</i> numbers - ethics in publication of statistical information.	Analysis of some “dodgy” statistics in the business world.	Resources on Learning@Griffith
2.	Types of numerical data - categorical and linear data. Introduction to tables and graphs to describe and summarise different types of data.	Introduction to SPSS – getting around. Introduction to tables and graphs using SPSS.	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
3.	Some useful numbers – measures of central tendency and variation in information. What to use, when. How to spot the problems.	How to get appropriate measures of central tendency and variation quickly and easily using SPSS (and Excel where appropriate). The well chosen average. Why knowing the variability is important.	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
4.	Looking at different distributions of data; some useful information about the normal distribution. <i>A picture speaks a thousand words.</i>	Looking at distributions and their properties using SPSS. Looking at statistical information on the ABS web site.	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.

Topic	Lecture Content	Tutorial/Laboratory Content	Readings
5.	Communicating <i>relationships</i> in tables and graphs for different data. Correlation does not equal causation, or critical analysis of published statistics designed to persuade. Review of ethics and business information.	Correlations and cross tabs using SPSS with Business data files.	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
6.	Useful statistics concepts and applications for decision making in Business.	TBA - Learning@Griffith	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component. Assignment 1 due Tuesday 6pm.
7.	Useful statistics concepts and applications for decision making in Business (cont).	TBA - Learning@Griffith	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
8.	Communicating important information using graphs and tables (1). Ethics and business information.	TBA - Learning@Griffith	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
9.	Communicating important information using graphs and tables (2). Ethics and business information.	TBA - Learning@Griffith	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
10.	Facilitating decision making through well designed graphical and tabular presentation of data.	TBA – Learning@Griffith	Resources on Learning@Griffith Relevant sections of Coakes & Steed for workshop component.
11.	Working with real data – applying the concepts (1)	Analysis of statistical information and decision making using a real data set. Ethics and business information.	Resources on Learning@Griffith Assignment 2 due Tuesday 6pm.

Topic	Lecture Content	Tutorial/Laboratory Content	Readings
12.	Working with real data – applying the concepts (2).	Analysis of statistical information and decision making using a real data set. Ethics and business information.	Resources on Learning@Griffith
13.	Revision and exam preparation.	Assignments returned	

ASSESSMENT

Summary of Assessment

Assessment in this course is designed to test the students' knowledge and understanding about course concepts and theories. Assessment is also designed to provide a variety of experiences and applications of course concepts, ensuring that students are able to apply the concepts as well as understand them.

Item	Assessment Task	Length	Weighting	Relevant Learning Outcomes	Due Day and Time
1.	Assignment 1	Maximum: 2000 words	20%	3, 4, 6, 7.	Tuesday 6pm Week 6
2.	Assignment 2	Maximum: 3000 words	40%	1, 2, 3, 4, 5, 6, 7.	Tuesday 6pm Week 11
3.	Examination	2 hours	40%	2, 3, 5, 6.	Examination period

Assessment Details

Assignment 1 20%

In this assignment each student will find examples from published sources (journal articles, newspaper, website, or magazine) of two excellent graphic presentations of data, and two examples of bad or misleading graphic data presentation. Students are then required to explain in no more than 2000 words what makes these examples good or bad, and how they have been designed to persuade or mislead the audience/ reader/ user.

Assignment 2 40%

By the end of the course students should have developed some basic expertise in presenting data in an appropriate and meaningful way. Students should also have developed expertise in establishing a logical and valid argument for interpreting the data. In this assignment students will be given a data set related to a particular managerial, marketing, or industry issue. The task is to present the data in two ways: First to present appropriate tables and/ or graphs, with accompanying analysis, to derive a conclusion that is ethically responsible and helps management to make effective decisions on the relevant issues; Second, to present the very same data in tabular and/or graphic form, with accompanying analysis, to show how that data might be presented and interpreted differently in a way that is unethical and designed to mislead the audience/ reader/ user, or to support ineffective decision making about the issues. Further details and a comprehensive brief about this assignment and what is expected of students will be available via Learning@Griffith.

Examination 40%

The final examination will consist of short answer questions pertaining to all topics of this course.

Return of Assessment Items

Hardcopy submissions of assignments will be returned to students with written feedback.

Notification of Availability of Feedback on Assessment

Comments and feedback on assignments will be given to students typically within 2 weeks of submission. Students will be notified of grades on the course website. General feedback to the class also will be conveyed in class, via e-mail and in the course website announcements.

GRADUATE SKILLS

The [Griffith Graduate Statement](#) lists the graduate skills that students should develop during their degree programs at Griffith University. Activities and assessment for this course aid in the development of the following skill areas of the Griffith Graduate:

Graduate Skills	Taught	Practised	Assessed
Effective communication (written)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Effective communication (oral)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Effective communication (interpersonal)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Information literacy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Problem solving	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Critical evaluation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Work autonomously	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Work in teams	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Creativity and innovation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Ethical behaviour in social / professional / work environments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Responsible, effective citizenship	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Professional Skills

Implicit in the Graduate Skills practiced above, students who successfully complete this course should be able to present data in ways that are ethically responsible and immediately useful for themselves and for superiors in order to make effective decisions.

TEACHING TEAM

Course Convenor and Lecturer

Convenor Details	South Bank
Campus Convenor	Helen Perkins
Email	h.perkins@griffith.edu.au
Office Location	Gold Coast: G01_2.05A
Phone	(07) 55528913
Fax	(07) 55528085
Consultation times	TBA – Posted to course website on Learning@GU

COURSE COMMUNICATIONS

Teaching and learning partnerships require clear and open communications. To that end, the following guidelines are provided:

1. Individual consultations with staff

All students are welcomed and encouraged to consult with the course lecturer on an “as needed” basis. Regular scheduled consultations are available weekly. For drop-in visits, it is more effective to make an appointment via email. For contact outside scheduled consultation times an appointment is mandatory.

2. Email

Staff to student: From time to time it may be necessary to send an official email to all students in the course. The email address to which the students’ mail will be sent is the official university student email address.

Student to staff: All emails to course faculty should contain the subject “7908MKT student enquiry” or a similar clearly identifying title, and should come from your university student email address. Responses will be made as soon as practicable.

3. Course notices

All notices relating to the course will be delivered at the weekly meetings and/or posted on Learning@Griffith.

4. Who to contact

Contact the course lecturer about all matters relating to the course overall or for clarification of any aspect of seminars or workshops.

5. Course communications through Learning@Griffith

Summaries of lecture notes will be posted on the website before the lecture where possible. They are not designed as a substitute for attendance. They do not replace the need to develop skills in synthesizing information provided in lectures and in practical workshops. Information about various pieces of assessment will also be posted on the website.

TEXTS AND SUPPORTING MATERIALS

Required text:

Coakes, S., & Steed, L. (2007). "SPSS Version 14.0 for Windows: Analysis Without Anguish". Milton, QLD: John Wiley & Sons.

Recommended:

SPSS Student Version software package (available bundled with text)

Highly recommended reading:

Darrell Huff, (1954), "How to Lie with Statistics" Penguin

Stephen C. Few, (2004), "Show Me the Numbers: Designing Tables and Graphs to Enlighten" Analytics Press: ISBN 0-9706019-9-9

Glenda Francis, (2004), "Introduction to SPSS for Windows" Pearson Prentice Hall

NB: **Additional recommended reading** will be supplied or linked from the course website via Learning@Griffith

Students are expected to undertake **independent research** relevant to the topics in this course to increase their understanding of the concepts.

SECTION B – ADDITIONAL COURSE INFORMATION

"Students should refer to the Learning@Griffith website for further information about this course."

SECTION C – KEY UNIVERSITY INFORMATION

ACADEMIC MISCONDUCT

Students must conduct their studies at the University honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is academic misconduct and is unacceptable.

Some students engage deliberately in academic misconduct, with intent to deceive. This conscious, pre-mediated form of cheating is one of the worst forms of fraudulent academic behaviour, for which the University has zero tolerance and for which penalties, including exclusion from the University, will be applied.

However the University recognises many students commit academic misconduct without intent to deceive. These students may be required to undertake additional educational activities to remediate their behaviour.

Specifically it is academic misconduct for a student to:

- **Cheat in examinations and tests** by communicating, or attempting to communicate, with a fellow individual who is neither an invigilator or member of staff; by copying, or attempting to copy from a fellow candidate; attempting to introduce or consult during the examination, any unauthorised printed or written material, or electronic calculating or information storage device; or mobile phones or other communication device, or impersonates another.
- **Fabricate results** by claiming to have carried out tests, experiments or observations that have not taken place or by presenting results not supported by the evidence with the object of obtaining an unfair advantage.
- **Misrepresent themselves** by presenting an untrue statement or not disclosing where there is a duty to disclose in order to create a false appearance or identity.

- **Plagiarise** by representing the work of another as their own original work, without appropriate acknowledgement of the author or the source. This category of cheating includes the following:
 1. collusion, where a piece of work prepared by a group is represented as if it were the student's own;
 2. acquiring or commissioning a piece of work, which is not his/her own and representing it as if it were, by
 - purchasing a paper from a commercial service, including internet sites, whether pre-written or specially prepared for the student concerned
 - submitting a paper written by another person, either by a fellow student or a person who is not a member of the University;
 3. duplication of the same or almost identical work for more than one assessment item;
 4. copying ideas, concepts, research data, images, sounds or text;
 5. paraphrasing a paper from a source text, whether in manuscript, printed or electronic form, without appropriate acknowledgement;
 6. cutting or pasting statements from multiple sources or piecing together work of others and representing them as original work;
 7. submitting, as one own work, all or part of another student's work, even with the student's knowledge or consent.

A student who willingly assists another student to plagiarise (for example by willingly giving them their own work to copy from) is also breaching academic integrity, and may be subject to disciplinary action.

Visit the University's Institutional Framework for Promoting Academic Integrity Among Students for further details.

PLAGIARISM DETECTION SOFTWARE

The University uses plagiarism detection software. Students should be aware that your Course Convenor may use this software to check submitted assignments. If this is the case your Course Convenor will provide more detailed information about how the detection software will be used for individual assessment items.

HEALTH AND SAFETY

Griffith University is committed to providing a safe work and study environment, however all students, staff and visitors have an obligation to ensure the safety of themselves and those whose safety may be affected by their actions. Staff in control of learning activities will ensure as far as reasonably practical, that those activities are safe and that all safety obligations are being met. Students are required to comply with all safety instructions and are requested to report safety concerns to the University.

General health and safety information can be obtained from http://www.griffith.edu.au/hrm/health_and_safety/

Information about Laboratory safety can be obtained from http://www.griffith.edu.au/ots/secure/health/content_labsafety.html

KEY STUDENT-RELATED POLICIES

All University policy documents are accessible to students via the University's Policy Library website at: www.griffith.edu.au/policylibrary. Links to key policy documents are included below for easy reference:

[Academic Calendar](#)

[Academic Standing, Progression and Exclusion Policy](#)

[Assessment Policy](#)

[Examinations Timetabling Policy and Procedures](#)

[Guideline on Student E-Mail](#)

[Health and Safety Policy](#)

[Institutional Framework for Promoting Academic Integrity Among Students](#)

[Policy on Student Grievances and Appeals](#)

[Student Administration Policy](#)

[Student Charter](#)

UNIVERSITY SUPPORT RESOURCES

The University provides many facilities and support services to assist students in their studies. Links to information about University support resources available to students are included below for easy reference:

[Learning Centres](#) - the University provides access to common use computing facilities for educational purposes. For details visit www.griffith.edu.au/cuse

[Learning@Griffith](#) - there is a dedicated website for this course via the Learning@Griffith student portal.

[Student Services](#) facilitate student access to and success at their academic studies. Student Services includes: Careers and Employment Service; Chaplaincy; Counselling Service; Health Service; Student Equity Services (incorporating the Disabilities Service); and the Welfare Office.

[Learning Services](#) within the Division of Information Services provides learning support in three skill areas: computing skills; library skills; and academic skills. The study skills resources on the website include self-help tasks focusing on critical thinking, exam skills, note taking, preparing presentations, referencing, writing, proof reading, and time management.