Course Code:	**1304AFE**
Course Name:	**Business Statistics**
Semester:	**Semester 1, 2016**
Program:	Associate Degree in Commerce & Business
	Diploma of Commerce
Credit Points:	10
Course Coordinator:	Vicki Hennegan
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Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.

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Staff Consultation

Your lecturer/tutor is available each week for consultation outside of normal class times. Times that your lecturer/tutor will be available for consultation will be given in the first week of lectures. A list of times and rooms will be published on the Griffith College Portal under the "myTimetable" link.

Prerequisites

There are no prerequisites for this course

Brief Course Description

Business Statistics is a 10 Credit Point course within the Diploma of Commerce. The course is situated within the first semester of the program. The Diploma of Commerce is designed to provide students with a pathway to:

- further university studies in Commerce, Business and related degrees or
- direct employment.

Business Statistics introduces students to the core concepts of statistical analysis. It is introductory in nature, and provides materials across a broad range of statistical techniques and methods. The focus of this course is to provide students with the ability to recognise situations in which statistical analysis may be useful, and the relevant techniques and methods that apply in those situations.

Rationale

Statistical analysis is the most important tool used in decision-making in all areas of business. To make a good decision, the decision-maker must carefully analyse all alternatives in the light of all available information. Business Statistics provides an opportunity for the development of key skills in recognition and the analysis of real world problems. It also provides opportunities for the development of logical thinking, reasoning, and critical thinking.

Aims

This course is designed to provide students with the basic statistical techniques needed for the study of their discipline. It aims to provide recognition where statistical analysis may be of benefit and introduce the range of methods that may apply to a given situation using real world examples.

Learning Outcomes

Upon successful completion of this course you will be able to:

1. Understand the nature of data and critically analyse basic statistical information.
2. Present statistical information graphically or numerically.
3. Understand and apply basic concepts in statistics such as the normal distribution, probability, sampling and Central Limit Theorem. You will also be able to see how they relate to the area of inferential statistics.
4. Understand and apply statistical techniques in inference such as confidence intervals, hypothesis testings, correlation and regression. In addition, you will also learn to calculate and interpret index numbers.
5. Use Excel to carry out your statistical analysis and appreciate Excel's strengths and weaknesses.
6. Communicate statistical findings to a non technical audience.

Texts and Supporting Materials

1. Selvanathan, E.A., Selvanathan, S., Keller, G., (2014). *Business Statistics, Abridged Australia New Zealand* (6th ed.). Cengage Learning.
2. Selvanathan, S., & Selvanathan, E.A. (2014). *Learning Statistics and Excel in Tandem - with Excel 2010* (4th ed.). Cengage Learning.
3. A non-programmable scientific calculator (preferred model: CASIO fx series).

Organisation and Teaching Strategies

Class Contact Summary

Attendance

Attendance at every lecture, tutorial and workshop is vital if you are seeking a pass in the course.

This is because the topics and concepts in this subject are cumulative. This means that you must understand the materials from previous weeks, before you can attempt to complete work in subsequent weeks.

Participation in Class

You are expected to actively participate in classes each week.

Consultant Times

Attendance during consultation times is optional but you are encouraged to use this extra help to improve your learning outcomes.

Course Materials

You are expected to prepare in advance for lectures, tutorials and workshops every week. Before attending lectures, you should have a copy of the lecture notes. Before attending tutorials and workshops you should have attempted the questions and problems.

You are required to bring the textbook, a statistical calculator (non-graphics & non-programmable) and any work in progress to every lecture, tutorial and workshop.

Independent Learning

You are expected to reinforce your learning from class time by undertaking sufficient independent study {approximately 6 hours per week outside of class time} so that you can achieve the learning outcomes of the course.

Program Progression

You are reminded that satisfactory Program Progression requires that attendance in classes is maintained at equal to or greater than 80%, and that GPA is maintained at equal to or greater than 3.5 with passing grades achieved in more than 50% of courses in any semester [please see Griffith College Policy Library - Program Progression Policy - for more information].

Content Schedule

Business Statistics consists of a series of specific statistical concepts [see Weekly Teaching Schedule]. Each week\\\\\\\'s lecture focuses on a particular set of concepts. The course commences by providing you with a brief introduction to the field of statistics.

Lectures in weeks 1 and 2 provide you with the fundamental skills to describe a data set graphically and numerically. The lecture in week 3 covers basic probability theory and continuous normal probability distributions. Understanding the normal probability distribution is important as it sets foundations for statistical inference covered in the subsequent weeks of the course.

The concepts of statistical inference and sampling distributions will be introduced in week 4. In weeks 5 to 7 you will then learn to apply the knowledge of statistical inference to estimate confidence intervals and to test pre-determined hypotheses.

Weeks 9-11 focus on correlation and regression analysis. Regression analysis is a method that is useful to analyse the relationship between variables of interest. In week 12, you will learn to calculate and interpret index numbers. Index numbers are measurements that are useful to summarise a large body of data with a single number.

Finally in week 13, a review of all materials studied in the previous weeks will be delivered to provide guidelines for the preparation of the final exam.

Weekly Teaching Schedule

Week	Topic	Activity	Readings
1	Introduction to Statistics & Graphical Descriptive Methods	Lecture	BS: Chapter 1, Chapter 2-section 2.1 only, Chapter 3-omit section 3.4, and Chapter 4-sections 4.1 and 4.2 only
	Overview of course; basic overview of Excel	Workshop	LSE: Chapter 1

2	Numerical Descriptive Measures	Lecture	BS: Chapter 5-omit section 5.5
	BS Exercises: 1.1, 1.2, 2.4, 2.5, 3.3, 3.4, 4.7{excluding part (a)}, 4.28, 4.41	Tutorial	
	Introduction to Spreadsheet	Workshop	LSE: Chapter 2
3	Continuous Probability Distributions, Normal and Standard Normal Distributions.	Lecture	BS: Chapter 8-section 8.3 only
	BS Exercises: 5.1, 5.7, 5.31, 5.52, 5.42, 5.65	Tutorial	
	LSE: Chapter 3 - Examples 3.3, 3.4, 3.1 and 3.2	Workshop	
4	Introduction to Statistical Inference and Sampling Distributions	Lecture	BS: Chapters 9 and 10
	BS Exercises: 8.11, 8.12, 8.19, 8.21a, 8.36	Tutorial	
	EXAM 1 during workshop	Workshop	
5	Confidence Interval Estimation (part 1)	Lecture	BS: Chapter 11
	BS Exercises: 10.1, 10.3, 10.13 a & c, 10.18, 10.27, 10.30	Tutorial	
	LSE: Chapter 4 - Example 4.1	Workshop	
6	Hypothesis Testing (part 1)	Lecture	BS: Chapter 11 and Chapter 13-omit section 13.5
	BS Exercises: 11.3, 11.6, 11.7, 11.8, 11.18, 11.55, 11.57, 11.65, 11.70	Tutorial	
	LSE Chapter 7 - Example 7.1 BS Exercises: 11.79, 11.81, 11.82	Workshop	
7	Hypothesis Testing (part 2)	Lecture	BS: Chapter 13-omit section 13.5
	Revision for Mid-Semester Exam	Tutorial	
	Revision for Mid-Semester Exam	Workshop	
8	Correlation Simple Linear Regression (Part 1)	Lecture	BS: Chapter 16-omit section 16.7
	BS Exercises: 13.1, 13.6, 13.12, 13.51, 13.52	Tutorial	
	LSE Chapter 9 - Examples 9.1 and 9.2	Workshop	
	Exam 2 (Mid Exam) to be conducted on Monday evening this week	Examination	
9	Correlation Simple Linear Regression (part 2)	Lecture	BS: Chapter 16-omit section 16.7; Notes published on portal
	BS Exercises: 13.28, 13.83, 13.88	Tutorial	
	LSE: Chapter 11 - Examples 11.1, 11.2 and 11.3	Workshop	
10	Correlation Simple Linear Regression (Part 3)	Lecture	
	Lecture Exercise	Lecture	Notes published on portal
	BS Exercises: 16.12, 16.13, 16.34, 16.35	Tutorial	
	LSE: Chapter 15 – Example 15.1	Workshop	
11	Correlation and Regression - Multiple Regression	Lecture	BS: Chapter 17-omit sections 17.3 and 17.4
	Revision for Computer Exam	Tutorial	
	Revision for Computer Exam	Workshop	
12	Index Numbers	Lecture	BS: Chapter 19-omit sections 19.4 and 19.5
	BS Exercises: 17.1, 17.12, 17.13	Tutorial	
	COMPUTING EXAM	Workshop	
13	Revision for Final Exam	Lecture	Practice Questions for Final Exam
	BS Exercises: 19.5, 19.6	Tutorial	Practice Questions for Final Exam
14	FINAL EXAM	Examination	Date and Time To Be Advised

Assessment

This section sets out the assessment requirements for this course.

Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date

1	EXAM 1	10%	1,2	4
2	EXAM 2 (Mid Exam)	25%	1,2,3	7
3	COMPUTING EXAM	20%	3,4,5,6	12
4	FINAL EXAM	45%	3,4,6	14

Assessment Details

1. Exam 1 will be held in week 4 during your scheduled computer workshop time. NOTE: Exam 1 is not a computing assessment. It consists of multiple choice and short answer questions that are to be solved manually using a calculator. Exam 1 is worth 10% of the assessment of the course and examines materials taught in lectures weeks 1 and 2.

2. Exam 2 (Mid Exam) will be held on the Thursday evening of Week 7 (time and venue to be advised by your lecturer in week 5). It consists of both multiple-choice and short answer questions covering the materials taught in lectures from weeks 3 to 5 inclusively. The mid-semester exam is worth 25% of the assessment of the subject. The exam involves both theoretical and calculation questions.

3. The computing exam will be held in week 12 during your scheduled workshop time. It consists of a number of short answer questions involving calculations and interpretations that are to be solved using Excel. All materials covered during the computing workshops are examinable. The computing exam is worth 20% of the assessment of the course.

4. The final exam consists of a number of multiple-choice and practical short answer questions. To be successful in this exam, you need to have a solid understanding of all topics covered in the course. The exam however will mainly examine lecture materials taught in weeks 6 to 12 inclusively. The final exam is worth 45% of the assessment of the course. The exam will involve theoretical, interpretation and calculation questions.

NOTE: To obtain a minimum pass grade for the course you will have to achieve an overall combined result from all assessments of 50%.

Submission and Return of Assessment Items

Normally you will be able to collect your assignments in class within fourteen [14] days of the due date for submission of the assignment.

Retention of Originals

You must be able to produce a copy of all work submitted if so requested. Copies should be retained until after the release of final results for the course.

Extensions

To apply for an extension of time for an assignment, you must submit an Application for Extension of Assignment form to your teacher at least 24 hours before the date the assignment is due. Grounds for extensions are usually: serious illness, accident, disability, bereavement or other compassionate circumstances and must be able to be substantiated with relevant documentation [e.g. Griffith College Medical Certificate]. Please refer to the Griffith College website - Policy Library - for guidelines regarding extensions and deferred assessment.

Assessment Feedback

Marks awarded for assessment items will also be available on the on-line grades system on the Student Website within fourteen [14] days of the due date.

Generic Skills

Griffith College aims to develop graduates who have an open and critical approach to learning and a capacity for lifelong learning. Through engagement in their studies, students are provided with opportunities to begin the development of these and other generic skills.

Studies in this course will give you opportunities to begin to develop the following skills:

Generic Skills	Taught	Practised	Assessed
Written Communication		Yes	Yes
Oral Communication		Yes	
Information Literacy	Yes	Yes	Yes
Secondary Research	Yes	Yes	Yes
Critical and Innovative Thinking	Yes	Yes	Yes
Academic Integrity		Yes	Yes
Self Directed Learning		Yes	Yes
Team Work		Yes	
Cultural Intelligence		Yes	

English Language Proficiency		Yes	

Additional Course Generic Skills

Specific Skills	Taught	Practised	Assessed
Data Analysis	Yes	Yes	Yes
Spreadsheet Programming	Yes	Yes	Yes

Additional Course Information

Teacher and Course Evaluations

Students generally find the topics on probability and inferential statistics to be fairly technical and rather challenging. They have however found that the extensive use of practical examples on the lecture summary notes and additional resources provided to be very useful to improve their learning.

Your feedback is respected and valued by your lecturers and tutors. You are encouraged to provide your thoughts on the course and teaching, both positive and critical, directly to your lecturer and tutor or by completing course and lecturer evaluations on the Griffith College portal whenever these are available.

Academic Integrity

Griffith College is committed to maintaining high academic standards to protect the value of its qualifications. Academic integrity means acting with the values of honesty, trust, fairness, respect and responsibility in learning, teaching and research. It is important for students, teachers, researchers and all staff to act in an honest way, be responsible for their actions, and show fairness in every part of their work. Academic integrity is important for an individual's and the College's reputation.

All staff and students of the College are responsible for academic integrity. As a student, you are expected to conduct your studies honestly, ethically and in accordance with accepted standards of academic conduct. Any form of academic conduct that is contrary to these standards is considered a breach of academic integrity and is unacceptable.

Some students deliberately breach academic integrity standards with intent to deceive. This conscious, pre-meditated form of cheating is considered to be one of the most serious forms of fraudulent academic behaviour, for which the College has zero tolerance and for which penalties, including exclusion from the College, will be applied.

However, Griffith College also recognises many students breach academic integrity standards without intent to deceive. In these cases, students may be required to undertake additional educational activities to remediate their behaviour and may also be provided appropriate advice by academic staff.

As you undertake your studies at Griffith College, your lecturers, tutors and academic advisors will provide you with guidance to understand and maintain academic integrity; however, it is also your responsibility to seek out guidance if and when you are unsure about appropriate academic conduct.

Please ensure that you are familiar with the **Griffith College Academic Integrity Policy**; this policy provides an overview of some of the behaviours that are considered breaches of academic integrity, as well as the penalties and processes involved when a breach is identified.

For further information please refer to the Academic Integrity Policy on the Griffith College website – Policy Library.

Risk Assessment Statement

There are no out of the ordinary risks associated with this course.

Note: For all Diploma level programs, Griffith College acknowledges content derived from Griffith University.