Course Code:	**BUS105A**
Course Name:	**Statistics**
Semester:	**Semester 1, 2016**
Program:	Certificate IV Tertiary Preparation Program
Credit Points:	10
Course Coordinator:	Rebecca Fox
Document modified:	11 Dec 2015 12:06:10

Teaching Team

Your lecturer/tutor can be contacted via the email system on the portal.	
Name	**Email**
Rebecca Fox	**rebecca.fox@staff.griffithcollege.edu.au**

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

This course introduces students to some fundamental concepts in statistics, both descriptive and inferential. Students will be introduced to applications of statistical methods involving business, government, sports medicine, physical science, biological science and social science data. The course will provide students with the ability to present, analyse and interpret statistical information and draw appropriate conclusions. Students will also use technology (MS Excel and/or scientific calculator) to perform most of the computational work

Rationale

As a graduate, entering professions such as commerce, information technology, engineering science, psychology and hotel management, students will require certain knowledge, understanding and skill in manipulating data statistically. To keep up with current trends, students will need to access many journals whose articles use a statistical approach. This course aims to prepare students to be able to present data in appropriate formats and to draw suitable conclusions in analysing data.

Aims

This course aims to develop students understanding of situations where statistical methods may offer insight into the decision making process. In this way students will learn how quantitative analysis supports management in its decision making. This is achieved by the combined impact of the assignment, the pedagogy used and the curriculum studied.

Learning Outcomes

Upon successful completion of this course students will be able to...
1. Demonstrate understanding of the term statistics, and the role and purpose of statistics in business, and the use of statistics for the decision-making process.
2. Develop knowledge of descriptive and inferential statistics, including the role of hypothesis testing.
3. Apply visual techniques of presenting data to illustrate trends, time series and relationships between variables.

4. Demonstrate understanding of the concepts of central tendency and dispersion and be able to determine and interpret their values.
5. Demonstrate understanding of the basics of probability and knowledge of laws of addition, multiplication and conditional probabilities.
6. Demonstrate understanding of normal distributions and how to use this knowledge to compute probabilities for \\\\\\\\\\\\\\\\'real life\\\\\\\\\\\\\\\\' normally distributed data.
7. Demonstrate understanding of how two variables are related using both correlation and regression techniques and the use of an appropriate model for forecasting.
8. Explain the various types of sampling and demonstrate understanding of the importance and benefits of sampling to public and private enterprise.
9. Use a non-programmable or programmable calculator to perform statistical operations.
10. Use Excel/Excel outputs to manipulate and analyse basic statistical data.

Texts and Supporting Materials

You are required to purchase the following resources for this course:

- Croucher, J. S.(2002). *Statistics: Making Business Decisions.* Sydney: McGraw Hill Australia.
- Scientific calculator

Organisation and Teaching Strategies

The course material will be covered through the use of lectures, tutorials, workshops, texts, practical exercises, and self-directed and peer-assisted learning. Course delivery consists of four compulsory contact hours per week. This involves a combination of formal lecturing, followed by practical exercises in a tutorial situation. Time is allocated to individual assignment work undertaken in a workshop format. Other workshop time will involve learning how to use Excel to manipulate statistical data. You will also be provided with individual teacher contact through consultation times.

The classes contribute to the development of the generic skills of written communication, information technology, analysis, critical evaluation, problem solving, interpersonal communication, participation and cultural awareness.

During workshop sessions in weeks 1 - 4 you will be working on presenting data and calculating numerical descriptive measures using Excel. During workshop sessions in weeks 5 - 10 you are expected to be actively working on your assignment. Further work on the assignment may need to be undertaken outside of class time.

Class Contact Summary

Attendance:
Your attendance in class will be marked twice during a four hour class. To receive full attendance, you must be present in the classroom on both occasions. Therefore, you are encouraged to attend and participate in all classes throughout the semester.

Participation in Class:
During classes each week you are expected to actively participate in exercises covering the current topic.

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

Course Materials:
Lecture notes will be made available to you on the Learning@Griffith College site on the student portal and you are advised to print these out before each class to help guide you in your study program. You are expected to bring these lecture notes with you to each class so that extra notes can be added. You are also expected to bring your text book and calculator to each class.

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

Each class is designed to build your understanding of basic statistical concepts progressively. You will learn to interpret tables and graphs and to present data statistically in appropriate formats. You will become familiar with manipulating data statistically and should increasingly be able to draw suitable conclusions when analysing data.

Weekly Teaching Schedule

Week	Topic	Activity	Readings
1	INTRODUCTION TO STATISTICS	Class	Chapters S1 and S2
	Exercises on Visual Presentation of Data	Class	Worksheet Provided
	Drawing Graphs using Excel	Class	Workshop notes for Excel on Portal
2	FREQUENCY DISTRIBUTIONS	Class	Chapter S2
	Exercises on Presenting Grouped and Ungrouped Data	Class	Chapter S2
	Using Excel to Draw Histograms,Ogives	Class	Workshop notes on Portal
3	MEASURES OF CENTRAL TENDENCY	Class	Chapter S3
	Exercises on Measures of Central Tendency	Class	Chapter S3
	Using Excel to Find Mean, Median, Mode	Class	Workshop notes on Portal
4	MEASURES OF DISPERSION	Class	Chapter S4

	Exercises on Measures of Dispersion	Class	Chapter S4
	Using Excel to Find Measures of Dispersion	Class	Workshop notes on Portal
5	QUIZ on Lectures 1 - 4.	Class	Practice questions on Portal in week 4
	Collecting Data for assignment	Class	
	Assignment	Class	
6	PROBABILITY PART 1	Class	Chapter S6
	Exercises in Probability	Class	Worksheet on Portal
	Assignment	Class	
7	PROBABILITY PART 2	Class	Lecture Notes on Portal
	Exercises in Probability	Class	Worksheet on Portal
	Revision for Mid-Semester Exam	Class	Practice Exam and past paper on Portal
8	MID SEMESTER EXAM	Class	
	Assignment	Class	
9	CORRELATION	Class	Chapter S8
	Exercises on Correlation	Class	Chapter S8
	Assignment	Class	
10	REGRESSION ANALYSIS	Class	Chapter S9
	Exercises on Regression Analysis	Class	Chapter S8 + Worksheet on Portal
	Assignment	Class	
11	NORMAL DISTRIBUTIONS	Class	Chapter 7
	Exercises on Normal Distributions	Class	Chapter 7
12	Exercises on sampling	Class	Chapter 5
	SAMPLING	Class	Chapter S5
13	REVISION	Class	Practice questions on Portal

Assessment

This section sets out the assessment requirements for this course.

Summary of Assessment

Item	Assessment Task	Weighting	Relevant Learning Outcomes	Due Date
1	Quiz	10%	2,3,4,9	5
2	Mid Semester Exam	30%	2,3,4,5,9	8
3	Assignment	20%	1,3,4,7,10	11
4	Final Exam	40%	3,6,7,8,9	14

Assessment Details

Theory Quiz
The quiz assesses the work covered in Weeks 1 - 4 (learning outcomes 2, 3, 4 % 9). The quiz consists of multiple choice, short answer questions and graphs and will be held during the first hour of the class in week 5.

Mid-Semester Exam
The mid-semester exam assesses your foundation knowledge and skills in descriptive statistics and basic probability as studied in Weeks 1 - 7 (learning outcomes 2, 3, 4, 5 & 9). This exam consists of multiple choice, short answer questions and graphs and is held during the class in week 8.

Assignment
This assignment extends from Week 5 to Week 11 and takes the form of an individual project. Part of class time each week will be devoted to a workshop set-up where you implement the statistical methods introduced in classes, and interpret the results to provide a meaningful analysis of a social science, business, sports medicine, physical science or biological science situation.

Non attendance at any of the workshops during weeks 5-10 could result in loss of marks to the absent student. Further details about the assignment and marking

criteria will be provided with your assignment when it is handed out to you.

The assignment assesses outcomes 1, 3, 4, 7, and 10. This assignment also contributes to the development of the generic skills of written communication, information literacy, information technology, secondary research, analysis, problem solving academic integrity,participation and time management as outlined in the matrix below.

Final Exam

The final examination is an assessment of your knowledge and understanding of descriptive and inferential statistics presented in weeks 9 - 13 (learning outcomes 3, 6, 7, 8, 9). It will consist of both multiple choice and short answer questions.

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

Submission and Return of Assessment Items

The individual assignment is due at the beginning of class in Week 11 and must be handed to your teacher at that time. The assignment must also be submitted electronically by the due date (further information will be provided to you during class time).

Late submission of the assignment without prior approval will **NOT** normally be granted except in exceptional circumstances, considered to be beyond your control.

Please note: You may be required to submit assignments electronically to a collusion detection tool to allow the detection of possible instances of collusion/plagiarism. This will also involve Griffith College or its nominee storing your work on a secure database for use in testing assessment submitted by others in the future. For further information on Griffith College\\\\\\\'s Academic Integrity Policy refer to Griffith College\\\\\\\'s online Policy Library.

Normally you will be able to access your results within fourteen [14] days of the due date for submission of the assignment. ALL assessment submitted in this course must be retained by Griffith College as directed by the Australian Skills Quality Authority (ASQA) made under section 28 (1) of the National Vocational Education and Training Regulator Act 2011.

Marks awarded for assessment items will be available on the on-line grades system on the Learning@Griffith College site on the student portal. within fourteen [14] days of the due date.

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	
Critical and Innovative Thinking			
Academic Integrity	Yes	Yes	Yes
Self Directed Learning			
Team Work		Yes	Yes
Cultural Intelligence			
English Language Proficiency			

Additional Course Generic Skills

Additional Course Information

In addition to formal contact hours, you are provided with extra support through individual consultation with teaching staff, tutorials in English language, and self-

access computer laboratories.

Teacher and Course Evaluations

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.

Copyright © - Griffith College

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