



# STAT20029 *Statistics for Managerial Decisions*

## Term 1 - 2018

Profile information current as at 02/10/2022 01:06 pm

All details in this unit profile for STAT20029 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## General Information

### Overview

This unit will examine statistics, with particular focus on applications to managerial decision making. It aims to equip students in the field of business and accounting with the statistical tools needed to make informed decisions in uncertain environments. Concepts and practical tools on how to interpret data, trends and patterns as well as estimation of risks and probabilities and, making inferences will be covered. Topics include exploratory data analysis, probability, statistical inference and forecasting. If you have successfully completed the unit STAT20028 you should not enrol in this unit.

### Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

### Offerings For Term 1 - 2018

- Brisbane
- Distance
- Melbourne
- Sydney

### Attendance Requirements

All on-campus students are expected to attend scheduled classes - in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

## Class and Assessment Overview

### Recommended Student Time Commitment

Each 6-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

### Class Timetable

#### [Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### [Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

#### 1. **Online Quiz(zes)**

Weighting: 20%

#### 2. **Written Assessment**

Weighting: 20%

#### 3. **Examination**

Weighting: 60%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Previous Student Feedback

### Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

#### Feedback from Abridged from student feedback of many students.

**Feedback**

Perfect unit for accounting students. The unit taught me a lot of new and useful things. Unit structure is brilliant, no improvement necessary.

**Recommendation**

Accounting students are kept in mind while making any changes in the unit. Assignment tasks are based on real world (authentic) problems to provide students exposure to the practical world. It is intended to retain the current unit structure.

#### Feedback from Abridged from student feedback.

**Feedback**

There are quite a few errors in the solutions manual provided by the publisher.

**Recommendation**

The publisher has been informed of the mistakes found so far. They will be informed if more mistakes are found in the future. The students are made aware of any mistake as soon as it is discovered.

#### Feedback from Abridged from student feedback.

**Feedback**

Use of whiteboards in addition to PowerPoint slides would be more helpful.

**Recommendation**

Whiteboards to be used in classes in addition to overhead projectors.

## Unit Learning Outcomes

**On successful completion of this unit, you will be able to:**

1. Analyze and work with data in a statistical framework
2. Interpret data to gather more information about the process
3. Estimate the probabilities of various scenarios and possibilities using popular tools
4. Make statistical inferences based on sample observations
5. Capture trends and make future projections
6. Compare the implications of alternative strategies in terms of risks and expectations

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Online Quiz(zes) - 20%	•	•	•	•		
2 - Written Assessment - 20%	•	•	•	•	•	•

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
3 - Examination - 60%	•	•	•	•	•	

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
1 - Knowledge	○	○	○	○	○	○
2 - Communication		○		○		○
3 - Cognitive, technical and creative skills	○		○	○	○	
4 - Research		○		○	○	
5 - Self-management						○
6 - Ethical and Professional Responsibility						○
7 - Leadership				○		○
8 - Aboriginal and Torres Strait Islander Cultures						

### Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Online Quiz(zes) - 20%	○		○					
2 - Written Assessment - 20%	○	○	○	○		○	○	
3 - Examination - 60%	○		○		○			

## Textbooks and Resources

### Textbooks

STAT20029

#### Prescribed

##### **Australasian Business Statistics**

Edition: 4th (2016)

Authors: Black, K. et al.

John Wiley & Sons, Inc.

Milton (Brisbane) , Queensland , Australia

ISBN: 0 471 42983 X

Binding: Other

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Microsoft Excel or Equivalent Spreadsheet Application

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Saleh Wasimi** Unit Coordinator

[s.wasimi@cqu.edu.au](mailto:s.wasimi@cqu.edu.au)

## Schedule

### Week 1 - 05 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Statistics	Study Guide (SG) Module 1; Set Text (ST) Chapter 1	

### Week 2 - 12 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Presenting Data	SG 2; ST Chapter 2, KaddStat is optional reading and will never be examined in this unit.	

### Week 3 - 19 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Numerical Descriptive Measures	SG 3; ST Chapter 3	Fortnightly Quiz 1

### Week 4 - 26 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Probability	SG 4; ST Chapter 4	

<b>Week 5 - 02 Apr 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Discrete Distributions	SG 5; ST Chapter 5	Fortnightly Quiz 2
<b>Vacation Week - 09 Apr 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
<b>Week 6 - 16 Apr 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Continuous Distributions	SG 6; ST Chapter 6	
<b>Week 7 - 23 Apr 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Sampling Distributions	SG 7; ST Chapter 7, Sampling has been covered earlier.	Fortnightly Quiz 3
<b>Week 8 - 30 Apr 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Confidence interval estimation	SG 8; ST Chapter 8 (exclude section 8.4 which is not in syllabus).	
<b>Week 9 - 07 May 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Hypothesis Testing	SG 9; ST Chapter 9 (exclude sections 9.6 and 9.7) and Chapter 10 (exclude section 10.5)	Fortnightly Quiz 4
<b>Week 10 - 14 May 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Chi-square tests	SG 10; ST Chapter 12	Submit Assignment 2 <b>Written Assessment</b> Due: Week 10 Friday (18 May 2018) 11:00 pm AEST
<b>Week 11 - 21 May 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Linear regression	SG 11; ST Chapter 13 but exclude 13.6 and 13.7	Fortnightly Quiz 5
<b>Week 12 - 28 May 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Time series forecasting and index numbers	SG 12; ST Chapter 15 but exclude 15.4	
<b>Review/Exam Week - 04 Jun 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
<b>Exam Week - 11 Jun 2018</b>		
<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>

## Term Specific Information

To pass this Unit (STAT20029) you must obtain:

- at least 24 marks out of 60 marks in the final exam AND
- at least 50% of the combined total marks for the two assignments and the exam.

## Assessment Tasks

### 1 Online Quiz(zes)

**Assessment Type**

Online Quiz(zes)

**Task Description**

You will have to use WileyPLUS website to login and sit the online quiz. Your password and user ID will be provided by the Unit Coordinator before the first quiz. The first quiz will start on Monday of Week 3 and end on Friday of the same week. The other quizzes will be in weeks 5, 7, 9 and 11. You will be allowed only 3 attempts to answer a question and the last answer will be saved and graded. No penalty for multiple attempts.

**Number of Quizzes**

5

**Frequency of Quizzes**

Fortnightly

**Assessment Due Date**

No extension possible. Try submitting earlier to avoid internet congestion at the last moment.

**Return Date to Students**

The results will be available online after the due date.

**Weighting**

20%

**Assessment Criteria**

No part marks available. You get full marks for correct answer and no mark for incorrect answer.

**Referencing Style**

- [Harvard \(author-date\)](#)

**Submission**

Online

**Submission Instructions**

See the STAT20029 Moodle website for details about the assignment submission.

**Learning Outcomes Assessed**

- Analyze and work with data in a statistical framework
- Interpret data to gather more information about the process
- Estimate the probabilities of various scenarios and possibilities using popular tools
- Make statistical inferences based on sample observations

**Graduate Attributes**

- Knowledge
- Cognitive, technical and creative skills

### 2 Written Assessment

**Assessment Type**

Written Assessment

**Task Description**

Solve the assignment 2 questions showing full working in legible writing or typed or combination. The questions will be from topics covered in weeks 1 to 9.

**Assessment Due Date**

Week 10 Friday (18 May 2018) 11:00 pm AEST

Submit online before the deadline to avoid internet congestion at the last moment.

**Return Date to Students**

Review/Exam Week Monday (4 June 2018)

Marked assignments will be returned in approximately two weeks after the submission date.

**Weighting**

20%

**Assessment Criteria**

Marks will be allocated for procedure, presentation and correct answer.

**Referencing Style**

- [Harvard \(author-date\)](#)

**Submission**

Online

**Submission Instructions**

Submit online in pdf, doc, docx or rtf format with a total size less than 50 MB. See further details about assignment submission in the STAT20029 Moodle website.

**Learning Outcomes Assessed**

- Analyze and work with data in a statistical framework
- Interpret data to gather more information about the process
- Estimate the probabilities of various scenarios and possibilities using popular tools
- Make statistical inferences based on sample observations
- Capture trends and make future projections
- Compare the implications of alternative strategies in terms of risks and expectations

**Graduate Attributes**

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility
- Leadership

## Examination

**Outline**

Complete an invigilated examination.

**Date**

During the examination period at a CQUniversity examination centre.

**Weighting**

60%

**Length**

180 minutes

**Minimum mark or grade**

You need to score at least 40 percent (24 out of 60) in the final exam to pass this unit.

**Exam Conditions**

Open Book.

**Materials**

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).  
Calculator - all non-communicable calculators, including scientific, programmable and graphics calculators are authorised



## Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

### What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

### Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

### Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

### What can you do to act with integrity?



#### Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



#### Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



#### Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem