



# PSYC12047 *Introduction to Data Analysis*

## Term 2 - 2017

Profile information current as at 26/04/2024 05:46 pm

All details in this unit profile for PSYC12047 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 has been designed to introduce students to preliminary concepts in statistics. The material covered in this unit will provide the necessary background for students who will do research as part of their undergraduate or professional careers. The goal of this unit is to provide students with the skills to perform basic statistical analyses as they apply in the health, human, and social sciences. It is a requirement of enrolment in the unit that students have competency at secondary level mathematics, and broadband access to the CQUniversity website and Internet. Students lacking competency in secondary level, including basic algebra, are encouraged to contact Student Services to discuss their options before enrolling in this unit.

#### Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

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 2 - 2017

- Bundaberg
- Distance
- Rockhampton

#### 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 Undergraduate 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. **In-class Test(s)**

Weighting: 40%

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

Weighting: 40%

#### 3. **Examination**

Weighting: 20%

### 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 Moodle

**Feedback**

Provide a reference sheet with the full workings for an example problem each week.

**Recommendation**

As per above, each focused recording could have an attached sheet that documents each calculation step

#### Feedback from Moodle

**Feedback**

Voice threads nominated as very helpful. More of these would be good.

**Recommendation**

Consider short focused recordings that focus on building a key skill

#### Feedback from Moodle

**Feedback**

Suggest clarification on the number of decimal places to employ in calculations.

**Recommendation**

Including specific instructions at beginning of course

## Unit Learning Outcomes

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

1. Demonstrate a knowledge of basic statistical procedures.
2. Demonstrate a knowledge of the application of these procedures.
3. Critically evaluate the use of statistics for research in the health, human, and social sciences

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes		
	1	2	3
<b>1 - In-class Test(s) - 40%</b>		•	
<b>2 - Examination - 20%</b>			•
<b>3 - Online Quiz(zes) - 40%</b>	•		

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
1 - Communication			
2 - Problem Solving	•	•	•
3 - Critical Thinking			•
4 - Information Literacy	•		
5 - Team Work			
6 - Information Technology Competence			
7 - Cross Cultural Competence			
8 - Ethical practice			
9 - Social Innovation			
10 - 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	9	10
1 - In-class Test(s) - 40%		•				•				
2 - Examination - 20%		•								
3 - Online Quiz(zes) - 40%		•	•							

## Textbooks and Resources

### Textbooks

PSYC12047

#### Prescribed

#### Introduction to Statistics in Psychology

Edition: 6th ed. (2014)

Authors: Howitt, D. & Cramer, D.

Pearson UK

Harlow, Essex, UK

ISBN: 9781292000749

Binding: Paperback

[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 (Highly recommended)

## Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 6th Edition \(APA 6th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Timothy Johnson** Unit Coordinator

[t.johnson@cqu.edu.au](mailto:t.johnson@cqu.edu.au)

## Schedule

### Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Describing variables	1-3	

### Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Data distributions	4-5	

### Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Standard deviation and z-scores; data relationships	6-7	

### Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Correlation and simple regression	8-9	Online Test 1

### Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Samples, populations and probability	10, 16	Calculation Quiz 1

#### **Vacation Week - 14 Aug 2017**

Module/Topic	Chapter	Events and Submissions/Topic
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#### **Week 6 - 21 Aug 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Hypothesis testing	11, 12	Online Test 2

#### **Week 7 - 28 Aug 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Paired sample t-tests; Significance levels	13, 17	Calculation Quiz 2

#### **Week 8 - 04 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Independent sample t-tests; two-tailed and one-tailed tests	14, 18	Online Test 3

#### **Week 9 - 11 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Chi-square and non-parametric ranking tests	15, 19	Calculation Quiz 3

#### **Week 10 - 18 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
One- and two-way independent groups ANOVA	21, 23	Online Test 4

#### **Week 11 - 25 Sep 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Partial correlation and multiple regression	30, 32	Calculation Quiz 4

#### **Week 12 - 02 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
Effect size, confidence intervals, and reliability	35, 37, 38	

#### **Review/Exam Week - 09 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
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#### **Exam Week - 16 Oct 2017**

Module/Topic	Chapter	Events and Submissions/Topic
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## Term Specific Information

The co-ordinator for this unit is Timothy Johnson, contactable at [t.johnson@cqu.edu.au](mailto:t.johnson@cqu.edu.au). Skype and/or phone contact information will be provided at the beginning of term.

## Assessment Tasks

1 Online Test(s)

**Assessment Type**

In-class Test(s)

**Task Description**

Online tests are to be taken in weeks 4, 6, 8, & 10. They will be open from 9am on Monday morning until 12 midnight on the following Monday. You have one attempt at each week's test in which you have 20 minutes to complete.

Online tests comprise of 20 multiple choice questions based on unit activities and text chapters from *previous* weeks. For example, the week 4 test covers material from weeks 1-3, and the week 6 test covers material from weeks 4-5.

Grades and feedback for each test will be made available immediately after the test closes, in Moodle

**Assessment Due Date**

Online tests will be open from 9am on Monday morning until 12 midnight on the following Monday in weeks 4,6,8 and 10

**Return Date to Students**

Grades and feedback for each test will be made available immediately after the test closes, in Moodle

**Weighting**

40%

**Assessment Criteria**

No Assessment Criteria

**Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Demonstrate a knowledge of the application of these procedures.

**Graduate Attributes**

- Problem Solving
- Information Technology Competence

## 2 Calculation Quiz(zes)

**Assessment Type**

Online Quiz(zes)

**Task Description**

Calculation quizzes are to be taken in weeks, 5, 7, 9, & 11. They will be open from 9am on Monday morning until 12 midnight on the following Monday. You have one attempt at each week's quiz in which you have 2 hours to complete.

**Number of Quizzes**

4

**Frequency of Quizzes**

Fortnightly

**Assessment Due Date**

Calculation quizzes will be open from 9am on Monday morning until 12 midnight on the following Monday in weeks 5,7,9 and 11

**Return Date to Students**

Grades and feedback for each quiz will be made available immediately after the quiz closes, in Moodle

**Weighting**

40%

**Assessment Criteria**

No Assessment Criteria

**Referencing Style**

- [American Psychological Association 6th Edition \(APA 6th edition\)](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Demonstrate a knowledge of basic statistical procedures.

**Graduate Attributes**

- Problem Solving
- Critical Thinking

## Examination

**Outline**

Complete an invigilated examination.

**Date**

During the examination period at a CQUniversity examination centre.

**Weighting**

20%

**Length**

90 minutes

**Exam Conditions**

Closed Book.

**Materials**

Calculator - non-programmable, no text retrieval, silent only

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).



## 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