



# ESSC11002 *Measurement and Evaluation in Health Science*

## Term 2 - 2024

Profile information current as at 29/07/2024 03:33 pm

All details in this unit profile for ESSC11002 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

In Measurement and Evaluation in Health Science you will study and explore a range of experimental designs and statistical analyses appropriate to investigations in a wide range of fields. This unit will introduce you to both parametric and non-parametric statistical methods that will allow you to be informed, evaluate the credibility and usefulness of information, and make appropriate decisions about research data. This is a practical unit that will develop your skills in the use of statistical software to organise, analyse and report statistical outcomes.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 10

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 - 2024

- Cairns
- Mackay City
- Online
- 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. **Online Quiz(zes)**

Weighting: 30%

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

Weighting: 70%

### 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 Staff Self-reflection; Student feedback

##### Feedback

Whilst the Unit Coordinator updated the assessments, more relevance to the variety of degrees is required for the Written Assessment.

##### Recommendation

It is recommended that the Written Assessment include questions specific to the relevant degree.

#### Feedback from Student feedback

##### Feedback

The lecturers were responsive and helpful.

##### Recommendation

It is recommended that the delivery of this unit continues with clear communication.

## Unit Learning Outcomes

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

1. Identify fundamental statistical terminology and theory
2. Demonstrate knowledge and ability in collating, organising and displaying research data
3. Utilise descriptive and inferential statistics to inform appropriate decision making
4. Apply statistical software to analyse, manage and describe statistical outcomes

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Online Quiz(zes) - 30%	•	•	•	
2 - Written Assessment - 70%	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Communication	•	•	•	•
2 - Problem Solving	•	•	•	•

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - Online Quiz(zes) - 30%	•	•	•							
2 - Written Assessment - 70%	•	•	•	•		•				

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

#### Additional Textbook Information

Students will be required to download Jamovi, a free open-source statistical analysis software package. This download is available for Windows and Mac operating systems. <https://www.jamovi.org/download.html>

### IT Resources

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

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Word
- Excel
- Jamovi (free statistics analysis program)
- Paint

## Referencing Style

All submissions for this unit must use the referencing style: [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Vincent Dalbo** Unit Coordinator

[v.dalbo@cqu.edu.au](mailto:v.dalbo@cqu.edu.au)

**Joshua Guy** Unit Coordinator

[j.guy@cqu.edu.au](mailto:j.guy@cqu.edu.au)

## Schedule

### Week 1 - 08 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Unit introduction and overview of statistical concepts you will learn in this class	Introduction to Statistics pages 231-234	
Lab: Entering and manipulating data using Excel		

### Week 2 - 15 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Building the foundation of statistics	Introduction to Statistics pages 10-28, 34-39, 131-135	
Lab: Meeting your new best friend, an introduction to Jamovi		

### Week 3 - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Random sampling, the bell curve, and hypothesis testing	Introduction to Statistics pages 44-51	
Lab: Know your curves, checking your data for normality		

### Week 4 - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Introduction to study design	Introduction to Statistics pages 222-224, 235-237, 238-241	
Lab: APA formatting and when to use tables and figures to present your research findings		

### Week 5 - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Correlations	Introduction to Statistics pages 164-174	
Lab: How to run a correlation, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript		<b>Online Quiz 1</b> Due: Week 5 Friday (9 August 2024) 5:00 PM AEST

**Vacation Week - 12 Aug 2024**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 6 - 19 Aug 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Hypothesis testing, understanding the bell curve, and knowing the difference between significance and meaningful in statistics  Lab: No lab	Introduction to Statistics pages 337-355, 369-376, 375-389	<b>Written Assessment Part A</b> Due: Week 6 Friday (23 August 2024) 5:00 PM AEST

**Week 7 - 26 Aug 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Dependent t-tests  Lab: How to run a dependent t-test, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript		

**Week 8 - 02 Sep 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Independent t-tests  Lab: How to run an independent t-test, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript	Introduction to Statistics pages 406-411	

**Week 9 - 09 Sep 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Within group ANOVA  Lab: How to run a within group ANOVA, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript		<b>Online Quiz 2</b> Due: Week 9 Friday (13 September 2024) 5:00 PM AEST

**Week 10 - 16 Sep 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: Between group ANOVA  Lab: How to run a between group ANOVA, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript		

**Week 11 - 23 Sep 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Lecture: RM ANOVA  Lab: How to run a RM ANOVA, interpreting results, making a figure, making a table, and interpreting statistics from a manuscript		<b>Online Quiz 3</b> Due: Week 11 Friday (27 September 2024) 5:00 PM AEST

**Week 12 - 30 Sep 2024**

Module/Topic	Chapter	Events and Submissions/Topic
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Lecture: Review game

Lab: No lab

**Written Assessment Part B** Due:  
Week 12 Friday (4 October 2024) 5:00  
PM AEST

### Review/Exam Week - 07 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic
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### Exam Week - 14 Oct 2024

Module/Topic	Chapter	Events and Submissions/Topic
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## Assessment Tasks

### 1 Online Quizzes

#### Assessment Type

Online Quiz(zes)

#### Task Description

There will be three (3) online quizzes comprised of multiple-choice questions. Each online quiz is to be completed on your own, using resources presented in this class. You are responsible for logging into Moodle and completing each online quiz while each online quiz is available. In the absence of an approved extension no late submissions will be allowed for any of the online quizzes that comprise this assessment item. Each online quiz must be completed in a single session (i.e., once you open an online quiz you will not be able to open it again) and you only have one (1) attempt on each online quiz. Online quizzes should be completed on a computer as attempting the quiz on a smartphone can result in your session being ended in the event of a phone call notification.

#### Online Quiz 1 (10% of final grade)

This quiz will cover unit content including lectures, labs, and readings from weeks 1-4. It is your responsibility to log into Moodle and complete the quiz within the given time period.

*Opening date:* Week 4 Friday at 5:00 PM AEST

*Closing date:* Week 5 Friday at at 5:00 PM AEST

#### Online Quiz 2 (10% of final grade)

This quiz will cover unit content including lectures, labs, and readings from weeks 1-8. It is your responsibility to log into Moodle and complete the quiz within the given time period.

*Opening date:* Week 8 Friday at 5:00 PM AEST

*Closing date:* Week 9 Friday at at 5:00 PM AEST

#### Online Quiz 3 (10% of final grade)

This quiz will cover unit content including lectures, labs, and readings from weeks 1-10. It is your responsibility to log into Moodle and complete the quiz within the given time period.

*Opening date:* Week 10 Friday at 5:00 PM AEST

*Closing date:* Week 11 Friday at at 5:00 PM AEST

#### Number of Quizzes

3

#### Frequency of Quizzes

Other

#### Assessment Due Date

The three (3) Online Quizzes will be administered at various timepoints as described in the task description.

#### Return Date to Students

Results for each Online Quiz will be available to students after the each quiz closes.

#### Weighting

30%

#### Assessment Criteria

Questions will be graded as correct or incorrect via the Moodle online quiz system. All quiz questions are equally weighted.

## Referencing Style

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

## Submission

Online

## Learning Outcomes Assessed

- Identify fundamental statistical terminology and theory
- Demonstrate knowledge and ability in collating, organising and displaying research data
- Utilise descriptive and inferential statistics to inform appropriate decision making

## Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking

# 2 Written Assessment

## Assessment Type

Written Assessment

## Task Description

**This assessment task is composed of two parts: Part A and Part B.**

### Written Assessment Part A

*Due date:* Week 6 Friday at at 5:00 PM AEST

*Weighting:* 30% of overall grade

*Description:* Written Assessment Part A will cover unit content including lectures, labs, and readings from Weeks 1-5. Questions will assess your understanding of unit content (e.g., why is random sampling important?) and your ability to work with data (e.g., correctly set up a data sheet, or given a set of data run the proper analysis and properly interpret the results). Submit your answers to the assessment questions on the Word document provided to you on Moodle. Do not change the provided template (e.g., move or remove the rubrics) and keep all text provided in red font. Type your answers using black font. Put your name and student number on the top of the first page of your assessment.

*Plagiarism:* The assessment submission will be checked for plagiarism. You are advised to familiarise yourself with CQUniversity's Academic Integrity Policy and Procedure. Any assessments suspected of plagiarism or any other type of academic misconduct will be addressed in accordance to the relevant policies noted in the unit profile.

*Word count:* If applicable a word count will be provided for the specific question. Words exceeding the word count will not be read.

*References:* References are not required as questions should be answered using unit content.

*Artificial intelligence (AI) statement:* The use of generative AI is not allowed for this assessment task. The assessment must be completed, individually, by each student.

*Extensions:* Extensions will only be granted in accordance with CQUniversity policy. Extensions must be submitted prior to the assessment due date and must be submitted through Moodle.

*Late submissions:* Assessments submitted late will incur penalties in accordance with CQUniversity policy.

*File submission:* Upload your file (answers) in a Word format (.doc or .docx). The instructor must receive an acceptable file that is readable. If an unacceptable/corrupt file is submitted your assessment will be considered late until an acceptable file is submitted. Late penalties will be incurred in accordance with CQUniversity policy.

### Written Assessment Part B

*Due date:* Week 12 Friday at at 5:00 PM AEST

*Weighting:* 40% of overall grade

*Description:* Written Assessment Part B will cover unit content including lectures, labs, and readings from Weeks 1-12. Questions will assess your understanding of unit content and your ability to work with data. Submit your answers to the assessment questions on the Word document provided to you on Moodle. Do not change the provided template (e.g., move or remove the rubrics) and keep all text provided in red font. Type your answers using black font. Put your name and student number on the top of the first page of your assessment.

*Plagiarism:* The assessment submission will be checked for plagiarism. You are advised to familiarise yourself with CQUniversity's Academic Integrity Policy and Procedure. Any assessments suspected of plagiarism or any other type of academic misconduct will be addressed in accordance to the relevant policies noted in the unit profile.

*Word count:* If applicable a word count will be provided for the specific question. Words exceeding the word count will not be read.

*References:* References are not required as questions should be answered using unit content.

*Artificial intelligence (AI) statement:* The use of generative AI is not allowed for this assessment task. The assessment



must be completed, individually, by each student.

*Extensions:* Extensions will only be granted in accordance with CQUniversity policy. Extensions must be submitted prior to the assessment due date and must be submitted through Moodle.

*Late submissions:* Assessments submitted late will incur penalties in accordance with CQUniversity policy.

*File submission:* Upload your file (answers) in a Word format (.doc or .docx). The instructor must receive an acceptable file that is readable. If an unacceptable/corrupt file is submitted your assessment will be considered late until an acceptable file is submitted. Late penalties will be incurred in accordance with CQUniversity policy.

### **Assessment Due Date**

Written Assessment Part A: Week 6 Friday at at 5:00 PM AEST; Written Assessment Part B: Week 12 Friday at at 5:00 PM AEST

### **Return Date to Students**

Written Assessment Part A: Week 8 Friday at at 5:00 PM AEST; Written Assessment Part B: Exam Week Friday at at 5:00 PM AEST

### **Weighting**

70%

### **Assessment Criteria**

Points will be awarded on your ability to correctly answer the assessment questions. Points will not be allocated to sections that are plagiarised in accordance with CQUniversity policy. A detailed marking rubric is available on Moodle.

### **Referencing Style**

- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

### **Submission**

Online

### **Learning Outcomes Assessed**

- Identify fundamental statistical terminology and theory
- Demonstrate knowledge and ability in collating, organising and displaying research data
- Utilise descriptive and inferential statistics to inform appropriate decision making
- Apply statistical software to analyse, manage and describe statistical outcomes

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

## 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