



AGRI11004 *Research in Agriculture*

Term 2 - 2019

Profile information current as at 15/05/2024 01:20 am

All details in this unit profile for AGRI11004 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 introduces the concept of critical thinking and research methodologies, extending the VET unit 'Manage a trial and/or research material'. Through your own supervised research activity, you will learn how to develop a research framework and apply critical thinking to solve complex problems.

Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 7

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Pre-requisite: SCIE11023 Science Communication

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 - 2019

- Bundaberg
- Emerald
- Mixed Mode
- 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. **Written Assessment**

Weighting: 60%

2. **Portfolio**

Weighting: 40%

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 Students' feedback

Feedback

Learn more about data analysis.

Recommendation

More exercises focusing on data analysis will be implemented next year.

Feedback from Moodle Have Your Say

Feedback

Assessment requirements difficult to understand

Recommendation

The new Unit Coordinator will work with a mentor to improve the clarity of the assessment requirements

Unit Learning Outcomes

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

1. Select appropriate data to answer a research question.
2. Formulate a research hypothesis.
3. Frame research questions based on existing theory.
4. Manage a research project.
5. Prepare a research report summarising the key findings of a research activity.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 60%	•	•	•		•
2 - Portfolio - 40%	•	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving					

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - Written Assessment - 60%	•		•	•	•	•		•		
2 - Portfolio - 40%	•		•	•	•	•		•		

Textbooks and Resources

Textbooks

There are no required textbooks.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Access to a spreadsheet program such as Excel
- Excel 2016 with Data Analysis Toolpak
- SPSS 19.0 or 20.0

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Shahla Hosseini Bai Unit Coordinator
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Schedule

Week 1 - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to managing research and trials	Introduction to quantitative analysis and sampling. Why we use statistics in agriculture. General concepts about experimental design, definition of variables. Defining a hypothesis. What is an experiment?	

Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Building industry focus	Introduction to experimental design, research and trial design, planning.	

Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
What is a sample?	Definition of a sample and experimental / sample unit (plants, crops, animal, insects, diseases). Sampling theory. Data integrity, annotations.	Research Portfolio, Part A is due Week 3 (Friday 2 nd August, 11 PM AEST).

Week 4 - 05 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
I have got all this experimental data but what I can do with it? Part I	Introduction to statistical analysis. Basic statistics used in research mean, variability, range, coefficient of variation, standard error and deviation.	

Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
I have got all this experimental data but what I can do with it? Part II	Accepting and/or rejecting the hypothesis, "t" test, analysis of variance (ANOVA).	Research Portfolio, Part B is due Week 5 (Friday 16 th August, 11 PM AEST).

Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Cause, effect and anecdotal evidence in experiments	Regression, correlation and anecdotal evidence. Linear and multilinear regression.	

Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Can't see the woods for the trees	Patterns, clusters, and systems approaches to data analysis.	

Week 8 - 09 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Reporting results to farmers, managers, stakeholders. Extension notes.

Factsheets, posters, extension and technical notes.

Research Portfolio, Part C is due Week 9 (Friday 20th September ,11 PM AEST).

Week 9 - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Reporting results to a scientific audience	Scientific reports (e.g. Journal, Thesis) structure (Introduction, Materials and Methods, Results and Discussion, Conclusion, References).	

Week 10 - 23 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
What is the best way to present the data? Tables, figures and reports	Tables, figures. Examples from different sources.	

Week 11 - 30 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Assessment Help		

Week 12 - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
		Written assessment due Week 12 (Friday 11 th October, 11 PM AEST)
		Scientific report and extension note Due: Week 12 Friday (11 Oct 2019) 11:00 pm AEST

Review/Exam Week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 21 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Scientific report and extension note

Assessment Type

Written Assessment

Task Description

Assessment Type: Written Assessment

Weighting: 60%

Assessment Description: This assessment consists of a written scientific report and a fact sheet or extension note. The report and fact sheet will present the findings of the research project undertaken during the practical component of this unit. The scientific report will be in the format of a scientific journal (1500-2000 words) (e.g. follow the instruction provided for the journal of 'Agriculture, Ecosystems & Environment' provided on the Moodle site) and will include an introduction, aims (including hypothesis of your experiment and research questions), materials and methods, number of samples and sampling strategy used during your experiment, analysis of the data during your experiment (including statistical analysis of the results), discussion of your results related with your hypothesis, conclusions and references. The fact sheet, extension note (300-500 words) will be a one page document summarising information from the scientific report with the intended audience being primary producers and industry. The focus of the fact sheet will be on the practical findings of the project and recommendations for addressing the agricultural issue investigated in the research project.

Assessment Due Date

Week 12 Friday (11 Oct 2019) 11:00 pm AEST

Return Date to Students

10 working days after due date.

Weighting

60%

Minimum mark or grade

50%

Assessment Criteria

The assessment will be marked based on marking rubrics available on the Moodle site.

Students will be marked on:

1. Properly addressing the aims and hypotheses (20%/100%)
2. Content (40%/100%)
3. Summary and conclusion (10%/100%)
4. Presentation and referencing/research (30%/100%)

Please follow instructions provided in marking rubric on the Moodle site.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Select appropriate data to answer a research question.
- Formulate a research hypothesis.
- Frame research questions based on existing theory.
- Prepare a research report summarising the key findings of a research activity.

Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

2 Research Portfolio

Assessment Type

Portfolio

Task Description

Assessment Type: Research Portfolio

Weighting: 40%

Assessment Description: The portfolio is made up of a series of activities undertaken in the tutorial and practical sessions and lectures. Activities include: budget estimation/cost of research, literature review or background of your research question/experiment; setting hypothesis and defining experimental design; sampling and sampling strategies, protocols; data collection, template of data collection and protocols; data analysis; and occupational health and safety. PART A (10%). Due date Friday, Week 3. This activity consists of a short report (300 - 400 words) discussing the budget estimation/cost of your research, literature review or background of your experiment; setting your hypothesis and defining your experimental design, templates for data collection and protocols for your experiment must be added. PART B (20%). Due date Friday, Week 5. QUIZ. The quiz consists of online multiple choice questions and short answers from the lectures, practical and tutorials from Week 1 to Week 5. The quiz will be open on Monday and close Friday Week 5 at 11 PM.

PART C (10%). Due date Friday, Week 8. This activity consists of a short report (300 - 400 words) discussing your sampling and sampling strategies, data collection and data analysis of your data; and occupational health and safety issues related to your research.

Assessment Due Date

Return Date to Students

10 working days after due date of each part.

Weighting

40%

Minimum mark or grade

Overall 50%

Assessment Criteria

The assessment will be marked based on marking rubrics available on the Moodle site.

Students will be marked on:

1. Properly addressing the topics of Part A and Part C in the portfolio (20%/100%)
2. Content (40%/100%)
3. Summary and conclusion (10%/100%)
4. Presentation and referencing/research (30%/100%)

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Select appropriate data to answer a research question.
- Formulate a research hypothesis.
- Frame research questions based on existing theory.
- Manage a research project.

Graduate Attributes

- Communication
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

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