



AGRI12008 Sustainable Crop Production

Term 1 - 2020

Profile information current as at 03/05/2024 09:45 am

All details in this unit profile for AGRI12008 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

You will be introduced to emerging trends and practices in sustainable management and improvement of the major cropping industries in Australia. You will explore production cycles, roles of genetics, environment, soils, water and sustainable management practices and profitability, new and emerging industries and issues affecting the development of major cropping industries.

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

Prerequisite AGRI11002 Crop Management Systems

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 - 2020

- Bundaberg
- Emerald
- 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. **Presentation**

Weighting: 20%

2. **Written Assessment**

Weighting: 20%

3. **Written Assessment**

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 Unit evaluation

Feedback

The field trip was very good because it helped a lot to see in the field what we studied

Recommendation

Retain the field trip in the unit schedule and deliver in similar structure to 2019

Feedback from Unit evaluation

Feedback

More time for the lectures

Recommendation

Add optional tutorial sessions so students wishing to discuss aspects of lectures that they may not have fully understood can have an opportunity to further explore the unit content.

Unit Learning Outcomes

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

1. Analyse crop production systems and identify strategies for improvement.
2. Review global emerging trends in sustainable crop production.
3. Develop and evaluate an innovation implementation strategy.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes		
	1	2	3
1 - Presentation - 20%		•	
2 - Written Assessment - 20%	•		
3 - Written Assessment - 60%			•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes		
	1	2	3
1 - Communication	•	•	•

Graduate Attributes	Learning Outcomes		
	1	2	3
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 - Presentation - 20%	•			•	•	•				
2 - Written Assessment - 20%	•	•	•	•						
3 - Written Assessment - 60%	•	•	•	•		•				

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)

Referencing Style

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

Teaching Contacts

Sabine Tausz-Posch Unit Coordinator
s.tausz-posch@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to sustainable crop production Introduces the main principles of crop management and the concept of sustainability.	Readings will be uploaded for each week in Moodle.	

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Crop productivity Reviews the key concepts driving crop productivity.		

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Grain crops: Cereals Introduces grain crops with a focus on cereals.		

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Grain crops: Legumes, pulses and C4 crops Continues grain crops with a focus on legumes (particularly pulses) as well as important grain crops with C4 mechanism.		Crop production in Australia Due: Week 4 Friday (3 Apr 2020) 11:45 pm AEST

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Horticultural crops Introduces fruit and vegetable crops, the group of crops requiring the most intensive management practices.		

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Industrial crops Outlines the group of crops used to produce non-food products such as cotton or extractive crops.		

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Temperature and nutrients

Explores how temperature and nutrients affect plant physiology, agronomy, productivity and sustainability.

Critical analysis of a crop production system in respect to productivity and sustainability

Due: Week 7 Friday (1 May 2020)
11:45 pm AEST

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Water and plant interactions Introduces water relations in crops and explores effects on productivity, profitability and sustainability.		

Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Trends in crop management Discusses how key trends, e.g. in digital technology, can be used to better understand and manage cropping systems for increased profitability and sustainability.		

Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Field trip Time to get on to the farm to see cropping systems in action.		Field trip

Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
Modelling crop production Discusses whether we can predict crop productivity based on known and assumed parameters.		

Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
Integration of concepts and revision		Innovation and implementation strategy report Due: Week 12 Friday (5 June 2020) 11:45 pm AEST

Review/Exam Week - 08 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Exam Week - 15 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Crop production in Australia

Assessment Type

Presentation

Task Description

You will prepare and present a 10-minute presentation (e.g. voice over PowerPoint or video) addressing an economically important crop in Australia. You will outline its history, where and how the crop is grown and refer to consumer/market trends that may impact its production. You will finish your presentation with a fascinating fact about the crop.

Assessment Due Date

Week 4 Friday (3 Apr 2020) 11:45 pm AEST

Return Date to Students

Week 6 Friday (24 Apr 2020)

Weighting

20%

Minimum mark or grade

40%

Assessment Criteria

- Knowledge about the history, distribution and production requirements of the selected crop
- Analyses of trends influencing production of the selected crop
- Originality of the fascinating fact
- Presentation skills

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Review global emerging trends in sustainable crop production.

Graduate Attributes

- Communication
- Information Literacy
- Team Work
- Information Technology Competence

2 Critical analysis of a crop production system in respect to productivity and sustainability

Assessment Type

Written Assessment

Task Description

For this assessment you will receive a case study including farm survey data for a grain crop production system relevant to Australia. You will analyse the provided data and present the results in your report. You will discuss the observed trends and answer questions in relation to the productivity and sustainability of the cropping system. The structure of the report will include a (1) brief introduction of the crop production system (200 \pm 10% words), (2) critical analysis of the case study including data evaluation, data presentation and answering of questions (no fixed word limit), (3) conclusion (100 \pm 10% words) and (4) references (no fixed word limit). You will submit your report online.

Assessment Due Date

Week 7 Friday (1 May 2020) 11:45 pm AEST

Return Date to Students

Week 9 Friday (15 May 2020)

Weighting

20%

Minimum mark or grade

40%

Assessment Criteria

- Ability to correctly analyse, present and interpret data
- Knowledge of the farming system
- Knowledge about sustainability concepts
- Professional presentation of the report including correct structure, referencing and keeping to word limit where needed

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Analyse crop production systems and identify strategies for improvement.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy

3 Innovation and implementation strategy report

Assessment Type

Written Assessment

Task Description

In this written assignment you will (1) analyse a cropping system including the current challenges the system is facing, (2) identify an innovation that allows for improved understanding of the cropping system including rationale and (3) evaluate an innovation implementation strategy for the cropping system analysed. Your report will have 2500 ($\pm 10\%$) words with the following structure:

- Title
- Abstract (not more than 250 words)
- Introduction of the farming system evaluated including current challenges
- Identification of an innovation for improved understanding of the cropping system including rationale
- Implementation strategy
- Conclusion
- References

Assessment Due Date

Week 12 Friday (5 June 2020) 11:45 pm AEST

Return Date to Students

Exam Week Friday (19 June 2020)

Weighting

60%

Minimum mark or grade

40%

Assessment Criteria

- Coherent and concise abstract covering all essential elements of the report while keeping to the word limit
- Knowledge of the farming system and a current challenge it is facing
- Knowledge of an innovation for improved understanding of the cropping system including ability to contextualise information
- Ability to draw information from scientific literature
- Professional presentation of the report including correct structure, referencing and keeping to word limit

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Develop and evaluate an innovation implementation strategy.

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