



AGRI11002 Crop Management Systems

Term 1 - 2019

Profile information current as at 29/04/2024 12:41 am

All details in this unit profile for AGRI11002 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 covers the fundamentals of crop production systems and is underpinned by the VET unit 'Manage agricultural crop production'. You will be introduced to a range of crop production systems including dry-land, irrigated, horticultural and orchard crops. The unit will use specific crop examples to demonstrate the fundamental factors that lead to growing a successful crop. You will be provided with an overview of crop physiology, crop nutrition and crop protection. The content of this unit will provide you with the necessary foundation for future units in the course.

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

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 - 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. **Portfolio**

Weighting: 40%

2. **Practical and Written Assessment**

Weighting: 20%

3. **Written Assessment**

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 Moodle site - students feedback and unit coordinator

Feedback

Lecture delivery

Recommendation

CQUniversity staff will continue to work with the partner organisation to encourage the provision of appropriate delivery of content.

Feedback from Moodle site - students feedback

Feedback

Unit content and alignment with assessments

Recommendation

CQUniversity staff will continue to work with the partner organisation to encourage the provision of appropriate delivery of content and its alignment with assessments.

Feedback from Moodle site - students feedback

Feedback

Need for improved feedback

Recommendation

CQUniversity staff will continue to work with the partner organisation to ensure appropriate feedback is provided to students

Unit Learning Outcomes

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

1. Determine management options and production targets for a cropping enterprise.
2. Select, test and implement appropriate crop innovations into farm activities.
3. Develop a whole of farm cropping management and risk mitigation plan.
4. Critique the environmental and legal requirements of crop management systems.

This unit will contribute to a Diploma of Agriculture upon successful completion of year 1.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 40%	•	•		•
2 - Portfolio - 40%	•		•	
3 - Practical and Written Assessment - 20%		•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - Written Assessment - 40%	•	•		•	•					
2 - Portfolio - 40%	•		•	•		•		•		
3 - Practical and Written Assessment - 20%	•	•	•	•	•	•				

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)
- Google Earth Pro
- LongPaddock
- PictureThis
- Microsoft Office (including Word, Excel and Powerpoint) or Equivalent Mac or Open Source Packages
- A suite of online tools, calculators and applications as specified in class.

Referencing Style

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

Teaching Contacts

Tieneke Trotter Unit Coordinator
t.trotter@cqu.edu.au

Schedule

Week 1 - 11 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Crop Management	As there is no text book for this unit, a variety of readings are available on the Moodle site and should be accessed every week.	

Week 2 - 18 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Audit Natural Resources and Built Resources on Farm		Portfolio - Practical report 1 (5%) Due: Monday 18 March, 5 PM AEST

Week 3 - 25 Mar 2019

Module/Topic	Chapter	Events and Submissions/Topic
Plant and Crop Physiology		

Week 4 - 01 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Crop Physiology, Climate and Production Systems		Portfolio - Practical report 2 (5%) Due: Monday 1 April, 5 PM AEST

Week 5 - 08 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Crop Nutrition		Portfolio - Practical report 3 (5%) Due: Monday 8 April, 5 PM AEST

Vacation Week - 15 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 22 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Irrigation Practice		Portfolio - Practical report 4 (5%) Due: Tuesday 23 April, 5 PM AEST

Week 7 - 29 Apr 2019

Module/Topic	Chapter	Events and Submissions/Topic
Weeds, Pests and Diseases		

Week 8 - 06 May 2019

Module/Topic	Chapter	Events and Submissions/Topic
Develop Management Strategies for Cropping		Portfolio - Practical report 5 (5%) Due: Tuesday 7 May, 5 PM AEST

Week 9 - 13 May 2019		
Module/Topic	Chapter	Events and Submissions/Topic
Budgets, Returns and Enterprise Records		Portfolio - Practical report 6 (5%) Due: Monday 13 May, 5 PM AEST Small Plot Trial and Report Due: Week 9 Friday (17 May 2019) 5:00 pm AEST
Week 10 - 20 May 2019		
Module/Topic	Chapter	Events and Submissions/Topic
Harvest, Postharvest, Storage and Marketing		
Week 11 - 27 May 2019		
Module/Topic	Chapter	Events and Submissions/Topic
Future of the Agriculture Cropping and Service Industry		Portfolio - Oral (20%) Due: Monday 27 May, 3 - 5 PM AEST (In the tutorial class)
Week 12 - 03 Jun 2019		
Module/Topic	Chapter	Events and Submissions/Topic
Cropping Innovations		
Review/Exam Week - 10 Jun 2019		
Module/Topic	Chapter	Events and Submissions/Topic
		Whole Farm Crop Production and Risk Mitigation Plan Due: Review/Exam Week Monday (10 June 2019) 5:00 pm AEST
Exam Week - 17 Jun 2019		
Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Portfolio

Assessment Type

Portfolio

Task Description

Your Portfolio is comprised of a series of six practical reports and one oral presentation.

The practical reports are completed on activities conducted in practical class time, including the field trips, and can be refined at home before submitting. Each practical report is worth 5%. These include:

1. Field trip report on local cropping property, including a statement on business direction, crop production plan aims/targets or goals, location of farm, crops produced, markets targeted and calendar of operations.
2. Assessing plant tissues using GreenSeeker.
3. Producing climate maps.
4. Nutrition - devising a total fertiliser program.
5. Descriptions of 1 weed, 1 pest and 1 disease found on local cropping property, its common and scientific name, issues it causes and options for control.
6. Cropping case study exercises using decision management tools.

The Oral Presentation (10%) will be delivered as a persuasive argument on a current issue faced by cropping farmers. Students will be given a topic in week 7 and will be assigned to either the affirmative or negative point of view. For the QLD campuses, the presentation will be conducted in the tutorial class in Week 11, Monday 27 May, 3 - 5 PM AEST. If you are a RIST student, we will book a time with you in Week 11. The oral presentations will be staff and peer marked. If students wish to qualify for the QATC Diploma, they will need to obtain at least 50% on every part of assessment. Re-submissions to QATC can be arranged if 50% is not achieved on the first trial.

Assessment Due Date

Various weeks throughout term as per unit schedule

Return Date to Students

On the Monday, one week after due dates as per unit schedule

Weighting

40%

Minimum mark or grade

50% of the overall marks

Assessment Criteria

The marking rubric will be posted to the Unit Moodle site.

For the Practical Reports, marks are awarded for:

1. Comprehensive completion of all field trip or practical work books provided
2. Quality of maps, graphs and charts
3. Quality of expression of information, spelling and grammar
4. Quality of referencing material and style
5. Length in regard to word limits.

For the oral presentation, marks will be awarded for:

1. Clarity of argument
2. Reference to prior studies or external information
3. Persuasiveness of argument
4. Keeping within the time limit
5. Presentation manner and audience engagement.

Referencing Style

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

Submission

Online

Submission Instructions

Reports to be submitted through assessment one link on Moodle site. Oral will be presented in class time as per unit schedule.

Learning Outcomes Assessed

- Determine management options and production targets for a cropping enterprise.
- Develop a whole of farm cropping management and risk mitigation plan.

Graduate Attributes

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

2 Small Plot Trial and Report

Assessment Type

Practical and Written Assessment

Task Description

You will set up a small plot to determine the effect of one variable on crop growth and development. Variables may include nitrogen fertiliser, sowing depth, sowing density or another variable as approved by your practical instructor. The plot will be set up in the practical class of Week 1. You will need to visit the plot each week to record the growth and development of your crop and keep this data in a log book. You will also need to record information about any activities that may affect crop growth, such as watering, rainfall events, fertiliser applications, or weed, pest and disease management, in your log book.

After eight weeks of data collection you will analyse the results, discuss the impact of your treatment on crop production and make recommendations based on the findings for this trial.

A template for weekly observations, and the discussion and recommendations will be provided on Moodle.

If students wish to qualify for the QATC Diploma, they will need to obtain at least 50% on every part of assessment. Re-submissions to QATC can be arranged if 50% is not achieved on the first trial.

Assessment Due Date

Week 9 Friday (17 May 2019) 5:00 pm AEST

Return Date to Students

Week 11 Friday (31 May 2019)

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

The marking rubric will be posted to the Unit Moodle site.

Marks are awarded for the quality of:

1. The weekly logging of data
2. Analysis and presentation of results including graphs and charts
3. Discussion of results
4. Recommendations
5. Expression of information, spelling and grammar
6. Referencing material and style
7. Length in regard to word limits.

Referencing Style

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

Submission

Online

Submission Instructions

Submit through assessment two link on Moodle site.

Learning Outcomes Assessed

- Select, test and implement appropriate crop innovations into farm activities.
- Develop a whole of farm cropping management and risk mitigation plan.

Graduate Attributes

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

3 Whole Farm Crop Production and Risk Mitigation Plan

Assessment Type

Written Assessment

Task Description

In this assessment you will develop a whole of farm crop production and risk mitigation plan for a property in your region and determine management options and production targets for a cropping enterprise.

Your crop production plan will be in the format of a report (2000 words) and includes an introduction, aims and main body addressing the following points:

1. A statement on business direction including crop production plan including:
 - objectives (what is this business trying to achieve?),
 - aims / targets or goals,
 - markets targeting, and
 - business risks from this type of production.
2. Information about the location including a farm infrastructure map, QLD Globe Maps, location, land tenure, topography and drainage systems, climate characteristics of the farm/region in order to select the appropriate crop or variety (e.g. rainfall, temperature), and any associated environmental risks.
3. A brief description of soil types and characteristics relevant to the crop selected (e.g. pH, organic matter content, nitrogen, phosphorus), including current status or needs.
4. An outline of previous production history including yields or potential production targets and any identified risks to this yield or potential yield.
5. A calendar of operations stating crop types / varieties and any rotations, include for each crop:

- plant density (e.g. kg of seeds/ha, etc.),
 - row spacing and any irrigation scheduling,
 - crop fertilizer requirements, type of fertilizer, rates and timing of application in order to achieve commercial yields (e.g. kg of urea / ha), and
 - Planting times, operational timing and harvest time.
6. A brief operational resource list outlining the resources required to undertake the crop production including:
- summary of machinery and equipment required,
 - basic safety requirements,
 - labour requirements,
 - marketing requirements, and
 - transport requirements.
7. A brief description of some key potential diseases, pests and weeds relevant to the crop selected.
8. A brief outline of the type of record keeping system that you would use to analyse the success of your crop production (the name of the system/s, the types of things to record, the type of analysis that you would conduct).
9. A recommendation for the use of the latest technology to improve production to better meet production aims and targets.
10. A reference list, including journal articles.

If students wish to qualify for the QATC Diploma, they will need to obtain at least 50% on every part of assessment. Re-submissions to QATC can be arranged if 50% is not achieved on the first trial.

Assessment Due Date

Review/Exam Week Monday (10 June 2019) 5:00 pm AEST

Return Date to Students

Certification of Grades - 12 July 2019

Weighting

40%

Minimum mark or grade

50%

Assessment Criteria

The marking rubric will be posted to the Unit Moodle site.

Marks are awarded for the quality of:

1. Introduction
2. Aims
3. Discussion of each of the topics listed in the main body of the report
4. Maps, graphs and charts
5. Recommendations for farm improvement using technology
6. Expression of information, spelling and grammar
7. Referencing material and style
8. Length in regard to word limits.

Referencing Style

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

Submission

Online

Submission Instructions

Submit through assessment three link on Moodle site.

Learning Outcomes Assessed

- Determine management options and production targets for a cropping enterprise.
- Select, test and implement appropriate crop innovations into farm activities.
- Critique the environmental and legal requirements of crop management systems.

Graduate Attributes

- Communication
- Problem Solving
- Information Literacy
- Team Work

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