



ZOOL19004 *Integrated Pest Management*

Term 1 - 2018

Profile information current as at 30/04/2024 12:53 am

All details in this unit profile for ZOOL19004 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

There are many human activities in natural systems where success relies on the management of pest insect, plant, and vertebrate species. Agriculture is perhaps the most obvious endeavour in which pests can cause massive environmental and economic damage if not managed effectively (e.g. weeds). In this unit the taxonomy, functional anatomy and morphology of pest species will be introduced, particularly insects which collectively form the most problematic pest group. The ecology of pest species, particularly as related to their management, will be explored, especially in the context of chemical and biological methods of population control. Integrated pest management and modern control strategies will be discussed as the contemporary best-practice solution to pest management.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisites: BIOL11099 Living Systems OR BIOL12110 Agricultural Production 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 - 2018

- 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).

Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

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: 20%

2. **Practical Assessment**

Weighting: 30%

3. **Examination**

Weighting: 50%

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

Feedback

Students expressed their enjoyment of the unit and its content, particularly emphasizing the relevance of topics covered to the real world.

Recommendation

Update unit content with more recent examples but maintain concepts and use of applied examples.

Feedback from Moodle feedback

Feedback

One student felt the exam could be replaced with a different assessment item (not specified, but presumably assessing their application of theory and skills).

Recommendation

The unit coordinator will review the current assessment structure and consider what alternatives may provide a better test of learning outcomes than the exam.

Feedback from Moodle Feedback and emails

Feedback

Some students expressed their disappointment at the residential school being cancelled because of Cyclone Debbie.

Recommendation

Instead of running the residential school in 2017, a back-up plan was initiated where students were given instruction and resources to complete the residential school project at their home. While this created more work logistical for the staff and students, it ensured the learning outcomes were assessed. The experience in 2017 will help to refine and improve this back-up option for future offerings, if required.

Unit Learning Outcomes

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

1. Define terminology relating to the anatomy, physiology, ecology, efficacy as a pest, and management of insects, vertebrates, and plants
2. Link insect, vertebrate, and plant physiology and ecology with their efficacy and management as a pest species, in verbal and written form
3. Describe the diversity of pest management practices, particularly in the context of guarding against environmental, economic, and social damage, in verbal and written form
4. Discuss the concepts, principles, and logic of integrated pest management in verbal and written form
5. Acquire taxonomic skills by preparing properly curated insect specimens and identifying them to the level of order at a minimum
6. Acquire practical skills in the scientific study of insects as a pest species by conducting experimental research on insect pests and their management in both field and laboratory settings.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level Introductory Level Intermediate Level Graduate Level Professional Level Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Written Assessment - 20%	•	•	•	•		
2 - Practical Assessment - 30%		•			•	•
3 - Examination - 50%	•	•	•	•		

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - 20%	•	•	•	•		•	•	•		
2 - Practical Assessment - 30%	•	•	•	•	•	•	•	•		
3 - Examination - 50%	•	•	•	•			•	•		

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

Leigh Stitz Unit Coordinator
l.stitz@cqu.edu.au

Schedule

Week 1 - 05 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Introduction What defines an insect pest?		

Week 2 - 12 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Insect taxonomy, evolution, and anatomy		

Week 3 - 19 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Insect mouthparts and sensory perception		

Week 4 - 26 Mar 2018

Module/Topic	Chapter	Events and Submissions/Topic
Insect reproduction, development, and ecology		

Week 5 - 02 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
Insect pest management		Pest Management Essay Due: Week 5 Friday (6 Apr 2018) 11:45 pm AEST

Vacation Week - 09 Apr 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 16 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Vertebrate pest biology, history, and legislation		
Week 7 - 23 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Terrestrial vertebrate pests		
Week 8 - 30 Apr 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Aquatic pests Native vertebrate pests		
Week 9 - 07 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
No lectures scheduled due to residential school		Residential School, Rockhampton, 30 April, 1 May & 2 May Assessment item 2: Oral Presentations (held during residential school)
Week 10 - 14 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Plant pests Integrated weed management		
Week 11 - 21 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Terrestrial weeds Aquatic weeds		Oral presentation (Residential School) and written report Due: Week 11 Monday (21 May 2018) 11:45 pm AEST
Week 12 - 28 May 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Review of key unit concepts		
Review/Exam Week - 04 Jun 2018		
Module/Topic	Chapter	Events and Submissions/Topic
Exam Week - 11 Jun 2018		
Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Assessment Tasks

1 Pest Management Essay

Assessment Type

Written Assessment

Task Description

Students will be required to write an essay justifying the need for managing a pest organism of their choosing, including

proposed management strategies. The unit Moodle site provides detailed instructions, hints, and tips for this assignment.

1000 words maximum (excluding title page, figure captions, tables and references).

Assessment Due Date

Week 5 Friday (6 Apr 2018) 11:45 pm AEST

Return Date to Students

Week 7 Monday (23 Apr 2018)

Two weeks after submission

Weighting

20%

Minimum mark or grade

40%

Assessment Criteria

Marks will be awarded for writing skills, content, research and referencing. Marks will be deducted for plagiarism and copying. Additional hints and tips for successfully completing this assignment are available on the unit Moodle site.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Define terminology relating to the anatomy, physiology, ecology, efficacy as a pest, and management of insects, vertebrates, and plants
- Link insect, vertebrate, and plant physiology and ecology with their efficacy and management as a pest species, in verbal and written form
- Describe the diversity of pest management practices, particularly in the context of guarding against environmental, economic, and social damage, in verbal and written form
- Discuss the concepts, principles, and logic of integrated pest management in verbal and written form

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

2 Oral presentation (Residential School) and written report

Assessment Type

Practical Assessment

Task Description

Students will be required to submit both an oral presentation (10 % of final grade) and written report (20 % of final grade) summarising their residential school research project. Further details and instructions about both assessments are provided on the unit Moodle site.

Assessment Due Date

Week 11 Monday (21 May 2018) 11:45 pm AEST

The oral presentation will take place during times to be determined at the residential school (30 April to 2 May 2018), the written report will be submitted online through Moodle and is due in week 11 by 11:45 pm on 21 May 2018

Return Date to Students

Review/Exam Week Monday (4 June 2018)

Weighting

30%

Minimum mark or grade

40%

Assessment Criteria

Marks will be awarded for speaking and writing skills, clear and concise presentation of research results, library research effort, and logical thoughts when interpreting results. Marks will be deducted for plagiarism. Please see instructions on the Moodle site for extra details, hints, and tips for completing this assessment successfully.

Referencing Style

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

Submission

Offline Online

Submission Instructions

The oral presentation will be submitted in person at the end of the residential school, while the written report will be submitted online at the end of week 11.

Learning Outcomes Assessed

- Link insect, vertebrate, and plant physiology and ecology with their efficacy and management as a pest species, in verbal and written form
- Acquire taxonomic skills by preparing properly curated insect specimens and identifying them to the level of order at a minimum
- Acquire practical skills in the scientific study of insects as a pest species by conducting experimental research on insect pests and their management in both field and laboratory settings.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

Examination

Outline

Complete an invigilated examination.

Date

During the examination period at a CQUniversity examination centre.

Weighting

50%

Length

180 minutes

Minimum mark or grade

50

Exam Conditions

Closed Book.

Materials

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