



ZOOL12009 *Invertebrate Zoology*

Term 1 - 2020

Profile information current as at 04/05/2024 09:57 am

All details in this unit profile for ZOOL12009 have been officially approved by CQUUniversity 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.

Corrections

Unit Profile Correction added on 28-04-20

The residential school for this unit has been changed from being based at the Rockhampton campus to being based at the student's own household and immediate surroundings. Additional online support for completing the practical components of the unit will be provided on the Moodle site.

Unit Profile Correction added on 28-04-20

The end of term examination has been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment.

General Information

Overview

The invertebrates are the largest and most diverse group of animals on Earth, being found in all environments and habitats. This unit provides an overview of the biology, ecology, and taxonomy of the various invertebrate phyla, linking adaptation and evolutionary history to understand the origins and proliferation of this great diversity of life.

Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Prerequisite BIOL11099 Living Systems or BIOL11102 Life Science Laboratory

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

- 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).

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

Students enjoyed the residential school but some thought it would be useful to form groups for data collection.

Recommendation

Consider grouping students prior to data collection at residential school.

Feedback from Moodle

Feedback

Students enjoyed the teaching styles of the lecturers.

Recommendation

Continue to deliver the material presented in a similar way as students like the approaches adopted.

Unit Learning Outcomes

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

1. Define terminology associated with the study of invertebrate zoology
2. Describe the structural and functional organisation of animals from the various invertebrate phyla in written and verbal form
3. Explain the evolutionary history of the invertebrates, including their adaptations to particular environments and their ecology
4. Identify the major invertebrate taxa and explain, in written and verbal form, the evolutionary and physiological basis for the taxonomic classification of these animals
5. Acquire practical skills in the study of invertebrates by conducting basic scientific research on invertebrate abundance, distribution, behaviour, and ecology in both field and laboratory settings.

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 - 20%	•	•	•		
2 - Practical Assessment - 30%	•	•		•	•
3 - Examination - 50%	•	•	•	•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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

Andrew Irving Unit Coordinator
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Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
1. Unit overview 2. Why study invertebrates?	Study guide chapter 1	

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
3. Invertebrates and the environment 4. Taxonomy and evolution of the invertebrates	Study guide chapters 2 & 3	

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
5. Protozoans 6. Porifera	Study guide chapters 4 & 5	

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
7. Cnidarians 8. Coral reefs	Study guide chapter 6	

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
9. Platyhelminthes 10. Of worms and coeloms	Study guide chapters 7 & 8	

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
11. Annelida 12. Mollusca part 1	Study guide chapters 9 & 10	Short Essay: The contribution of 'lower' invertebrates to human populations Due: Week 6 Friday (24 Apr 2020) 11:45 pm AEST

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
13. Mollusca part 2: Gastropoda 14. Mollusca part 3: Cephalopoda	Study guide chapter 10	

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
No lectures this week. <i>We'll have fun at the residential school instead!</i>		Residential school: 5 - 7 May, Rockhampton

Week 9 - 11 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
15. Arthropoda part 1: Introduction 16. Arthropoda part 2: Uniramia	Study guide chapter 11	

Week 10 - 18 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
17. Arthropoda part 3: Crustaceans 18. Lophophorates	Study guide chapters 11 & 12	

Week 11 - 25 May 2020

Module/Topic	Chapter	Events and Submissions/Topic
19. Echinodermata 20. Hemichordates and Chordates	Study guide chapters 13 & 14	

Week 12 - 01 Jun 2020

Module/Topic	Chapter	Events and Submissions/Topic
21. Unit review plus Q&A		Practical report: Residential school project 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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Term Specific Information

This unit comprises a series of lectures and a 3-day long residential school in Rockhampton. Lectures will be given live and recorded for later viewing. The residential school will involve a combination of field and laboratory work, which may include getting wet during sampling. The unit's Moodle page will be the key access point for all relevant information and communication regarding all aspects of the unit.

Assessment Tasks

1 Short Essay: The contribution of 'lower' invertebrates to human populations

Assessment Type

Written Assessment

Task Description

This written assignment requires you to complete a concise 1000 word essay.

"Lower invertebrates", so called because they generally appeared early in the history of life on Earth, provide many benefits to humans (e.g. medical applications, food and resources, understanding how life on Earth 'works', etc.), as well as many detriments (infections, parasites, food spoilage, etc.). Your task is to summarise how a lower invertebrate (as an individual species or a higher taxonomic level) contributes to the benefit or detriment of human populations. You are free to choose any invertebrate/outcome/field of research that interests you, but ensure your topic is based on a 'lower' invertebrate. This includes the protozoans, poriferans, cnidarians, platyhelminthes, nematodes and nemertean, which will be described in detail in lectures.

Additional information regarding assessment requirements, hints, and submission guidelines will be provided on the unit's Moodle site.

Assessment Due Date

Week 6 Friday (24 Apr 2020) 11:45 pm AEST

Please submit as a 'Word' document via Moodle

Return Date to Students

Week 8 Friday (8 May 2020)

Return will be done via Moodle

Weighting

20%

Minimum mark or grade

40%

Assessment Criteria

This concise essay assignment will be marked against the following criteria:

1. The overall clarity of the essay with respect to structure and presentation (including any figures or tables), grammar and spelling.
2. Clearly describing how a 'lower' invertebrate of your choosing affects human populations, either positively or negatively.
3. The extent to which the essay demonstrates research of the topic outside of the lecture content.
4. Appropriate acknowledgment of sources in the text and accurate representation in the reference list, using the Harvard referencing style.
5. Effectively summarising information within the 1000 word limit.

Referencing Style

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

Submission

Online

Submission Instructions

Submit as a 'Word' document via Moodle

Learning Outcomes Assessed

- Define terminology associated with the study of invertebrate zoology
- Describe the structural and functional organisation of animals from the various invertebrate phyla in written and verbal form
- Explain the evolutionary history of the invertebrates, including their adaptations to particular environments and their ecology

Graduate Attributes

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

2 Practical report: Residential school project

Assessment Type

Practical Assessment

Task Description

This practical assessment comprises a written report summarising the practical work you will complete during the residential school. This assessment is worth 30% of your unit grade.

The residential school will require you to sample multiple habitats (including aquatic and terrestrial) to collect a range of invertebrate taxa for subsequent identification and enumeration in the laboratory using provided methods and procedures. As such, the residential school will combine field work and laboratory work to enable you to learn field sampling skills, practice use of laboratory equipment such as microscopes, and further develop your skills in the use of dichotomous taxonomic identification keys.

While we will be traveling to field sites as a group, you will be required to complete your sampling, sample processing, and invertebrate identification and enumeration individually. Additionally, you will be required to write an individual report based on your observations, results and findings for submission to the unit Moodle site by the due date.

Additional information, resources, and assessment instructions will be provided on the unit Moodle site during term, and at the residential school.

Assessment Due Date

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

Please submit as a 'Word' document via Moodle

Return Date to Students

Exam Week Friday (19 June 2020)

Return will be done via Moodle

Weighting

30%

Minimum mark or grade

40%

Assessment Criteria

The practical report that you submit for assessment will require you to provide:

1. A background description of the rationale for doing the research/sampling.
2. A description of the sites sampled and methodology used.
3. A list of invertebrate taxa identified in each habitat sampled.
4. Graphs of the invertebrate abundance and diversity sampled.
5. A summary discussion of the results obtained, placed in the context of current literature.
6. Maximum of 2500 words.
7. Minimum of eight (8) references (no web pages unless of the data repository type).

Referencing Style

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

Submission

Online

Submission Instructions

Please submit as a 'Word' document via Moodle

Learning Outcomes Assessed

- Define terminology associated with the study of invertebrate zoology
- Describe the structural and functional organisation of animals from the various invertebrate phyla in written and verbal form
- Identify the major invertebrate taxa and explain, in written and verbal form, the evolutionary and physiological basis for the taxonomic classification of these animals
- Acquire practical skills in the study of invertebrates by conducting basic scientific research on invertebrate abundance, distribution, behaviour, and ecology in both field and laboratory settings.

Graduate Attributes

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

40%

Exam Conditions

Closed Book.

Materials

Dictionary - non-electronic, concise, direct translation only (dictionary must not contain any notes or comments).
Calculator - non-programmable, no text retrieval, silent only

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