ZOOL12009 *Invertebrate Zoology*
Term 1 - 2017

Profile information current as at 14/05/2024 08:42 pm

All details in this unit profile for ZOOL12009 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
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
ZOOL11005 Foundation Animal Biology or BIOL11099 Living 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 - 2017

- 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 Student feedback

Feedback
Release the whole term content instead of week by week. other students liked the weekly release of lectures.

Recommendation
IN the future we could provide the study guides for all weeks upfront but release the lectures week by week to allow for time relevant announcements and feedback.

Action
The study guides and lectures were delivered on weekly basis without complaint.

Feedback from Student feedback

Feedback
A few students were unsatisfied by the lack of a "revision sheet" for the examination

Recommendation
One past exam and a revision lecture and notes was provided. This along with the study notes gives good revision material. Additional past exam material could be made available.

Action
One past exam and revision lecture was provided. Additional feedback from 2017 supports this recommendation.

Feedback from Student feedback

Feedback
Residential school should relate back to lecture content more

Recommendation
Include an additional residential school activity for collected specimens across all projects to be classified by each team. Purchase some good identification guides for students to use at the residential school. Also providing the arthropod lectures in advance of the res school to help those students carrying out insect related projects.

Action
Collected specimen from different projects were identified to order level using online identification keys and books. Arthropod lectures were provided in advance to residential school. Additional feedback from 2017 supports this recommendation.

Feedback from Student feedback

Feedback
More support for the lecturer during the residential school

Recommendation
Involve RHD students in Residential school to gain experience and provide extra assistance

Action
More staff were involved during residential school to provide extra assistance.

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 wirtten 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 abundaunce, distribution, behaviour, and ecology 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
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				•	•

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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

Geeta Gautam Kafle Unit Coordinator
g.gautamkafle@cqu.edu.au

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
1. Course overview 2. Why study invertebrates		

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic

3. Invertebrates and the environment 4. Taxonomy and Evolution of invertebrates		

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
5. Protozoa 6. Porifera		

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
7. Cnidarians 8. How to build a coral reef in 4 easy steps		

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
9. Platyhelminthes 10. Worms and Coelomes		

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
11. Annelida 12. Mollusca part 1		**Written Assessment** Due: Week 6 Tuesday (18 Apr 2017) 11:45 pm AEST

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
13. Mollusca part 2 14. Attack of the Cephalopods! (aka Mollusca part 3)		

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
No lectures to accommodate residential school		Residential School 5 -7 May 2017.

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
15. Arthropoda part 1 16. Arthropoda part 2		

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
17. Greetings, fellow Crustaceans! (aka Arthropoda part 3) 18. Things just got weird (aka Lophophorates)		

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
19. Echinodermata 20. Hemichordates		

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
21. How you're related to a spineless blob (aka Chordates) 22. Course review		**Practical Assessment** Due: Week 12 Friday (2 June 2017) 5:00 pm AEST

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Written Assessment

Assessment Type
Written Assessment

Task Description
Assessment Aim
The aim of this assessment is to apply some of your knowledge from the lectures, encourage you to research a topic in more detail and hone your writing skills to be concise.
Assessment Description
This written assignment for this course comprises a 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 summarize 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 (i.e. invertebrates up to and including Platyhelminthes, or flatworms, on the invertebrate tree of life. This includes groups such as the protozoans, poriferans, cnidarians, nematodes, platyhelminths and nemerteans and will be described in detail in lectures.)

Assessment Due Date
Week 6 Tuesday (18 Apr 2017) 11:45 pm AEST

Return Date to Students
Monday (1 May 2017)

Weighting
20%

Minimum mark or grade
30%

Assessment Criteria
The written assessment will be marked against the following criteria:
1. The overall clarity of the essay with respect to structure and presentation (including figures and tables), grammar and spelling.
2. The extent to which the essay demonstrates research of the topic outside of the lecture content.
3. Appropriate acknowledgment of sources in the text and accurate representation in the reference list, using the Harvard referencing style.
4. Demonstration of distilling/summarizing abilities (ability to stick to the 1000 word limit).

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
via Moodle rtf.,doc,docx accepted

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

2 Practical Assessment

Assessment Type
Practical Assessment

Task Description
The practical assessment is a written report and oral presentation based on the project completed during the residential school. As such attendance at the Residential School is mandatory.
Written report

- Prepared in the format of a scientific journal article (a template will be provided).
- Prepared either as an individual or in a group.
- Maximum of 1500 words
- Minimum of 10 references.

Oral presentation

- Final day of residential school in Rockhampton
- 8-10 powerpoint slides.
- Maximum of 10 minutes plus 5 minutes question time.
- Presented as a group.

Assessment Due Date
Week 12 Friday (2 June 2017) 5:00 pm AEST

Return Date to Students
Review/Exam Week Friday (9 June 2017)

Weighting
30%

Minimum mark or grade
40%

Assessment Criteria
The assessment will be marked on specific criteria relating to the oral presentation and report:
Written report:

- **Abstract** (clear, concise summary of context, hypothesis, results and conclusions)
- **Introduction** (Relevant context provided, starting with a broad focus of observations and models and narrowing to a clear, well-articulated hypothesis for a manipulative experiment)
- **Methods** (adequate description and justification of methods used so experiment could be repeated)
- **Results** (Concise description of results, ordered logically and presented in graphs/tables, as well as basic statistical analyses)
- **Discussion** (Logical structure that discusses the key results and their meaning before placing results in a broader context and identifying biases/improvements/further fields of study etc)
- **References** (cited appropriately throughout text, 10 minimum, no web pages unless data repository-type)
- **Spelling & grammar**
- **Word count** (keeping to guidelines in each section).

Oral presentation:

- **Questions:** Are questions and criticisms of the research project adequately considered and answered? Are the speakers able to place their results in a broader context to explain their significance? Do the speakers recognize possible improvements to the experimental design, including new ideas that have emerged while doing the research?

- **Style**: Do the speakers present the research clearly and confidently, demonstrating a sound grasp of the hypothesis and reasoning behind the methodology? Do the speakers present the research at an appropriate pace and keep on time? Do the speakers make good eye contact and engage with the audience?
- **Content**: Are the slides clearly presented, logically ordered, well organized and pleasing to the eye? Do the slides present all the relevant information needed to understand the research project, including the reason(s) for doing the experiment, and any conclusions?

Referencing Style

- Harvard (author-date)

Submission
Offline

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
- Identify the major invertebrate taxa and explain, in wirtten 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 abundaunce, distribution, behaviour, and ecology in both field and laboratory settings

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- 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
45

Exam Conditions
Closed Book.

Materials
No calculators permitted
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