



BIOL12112 *Animal and Plant Physiology*

Term 1 - 2024

Profile information current as at 29/04/2024 10:48 am

All details in this unit profile for BIOL12112 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

In Animal and Plant Physiology you will study the basic functioning of plants and animals. You will explore a number of major themes in biology including the integral relationship between structure and function, the maintenance of homeostasis and the principles of evolution and adaptation. You will examine major functions of living organisms such as locomotion, nutrition, respiration, circulation and reproduction. In the practical component you will gain hands-on experience of relevant laboratory and field procedures.

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

Pre-requisites BIOL11102 Life Science Laboratory and ENVR11014 Environmental Monitoring

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 - 2024

- 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. **Online Quiz(zes)**

Weighting: 20%

2. **Written Assessment**

Weighting: 30%

3. **Practical Assessment**

Weighting: Pass/Fail

4. **Online Quiz(zes)**

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 SUTE

Feedback

Incorporating R-studio and other data science related learning into science degrees is beneficial for science students and their future.

Recommendation

We intend to keep the R-studio practical.

Feedback from SUTE

Feedback

Make it more clear that digitally drawn images (created by students but using drawing software) are allowed.

Recommendation

We will make it more clear in the End of Term Online Quiz instructions that digital images created by the student are allowable.

Feedback from SUTE

Feedback

Students reported that the lecturers' passion for the topics was evident in every lecture and that this made the content more fun to engage with. Students also appreciated the creativity and flexibility allowed in the mythical creature assessment. Students also found residential school interesting and educational.

Recommendation

The unit coordinators will continue to be enthusiastic and kind. The mythical creature assessment will be continued.

Unit Learning Outcomes

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

1. Describe the function of the major organ systems in plants and animals
2. Discuss the relationship between the structure and function of living organisms
3. Apply the concepts of homeostasis to various organ systems in plants and animals
4. Discuss the evolution and adaptation of plant and animal function in relation to the environment
5. Perform a range of practical procedures in the laboratory and the field relating to the physiology of plants and animals.

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 - Online Quiz(zes) - 20%	•				•
2 - Written Assessment - 30%		•	•	•	

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
3 - Practical Assessment - 0%					•
4 - Online Quiz(zes) - 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 - Online Quiz(zes) - 20%		•				•				
2 - Written Assessment - 30%	•			•						
3 - Practical Assessment - 0%		•			•					
4 - Online Quiz(zes) - 50%	•	•	•							

Textbooks and Resources

Textbooks

BIOL12112

Prescribed

Campbell Biology: Australian and New Zealand Version

Edition: 12th edn (2021)

Authors: Reece, J

Pearson Australia

Sydney , NSW , Australia

ISBN: 9781488613715

Binding: Hardcover

[View textbooks at the CQUniversity Bookshop](#)

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

Amie Anastasi Unit Coordinator

a.anastasi@cqu.edu.au

Schedule

Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
General Concepts in Functional Biology	Study Guide Week 1	

Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Genetics and reproduction	Study Guide Week 2	Confirm your choice of mythical creature with Unit Coordinator by email. Due Friday, 11:59PM.

Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Development and dispersal	Study Guide Week 3	Online Theory Quiz A closes (Monday 8AM AEST)

Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Energy and Metabolism	Study Guide Week 4	

Week 5 - 01 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Nutrition and digestion	Study Guide Week 5	
Vacation Week - 08 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Lecture Recess		
Week 6 - 15 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Nutrients, Water and Waste	Study Guide Week 6	Online Theory Quiz B closes (Monday 8AM AEST)
Week 7 - 22 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
No lectures this week		Residential School/Block Practicals (Compulsory) in Rockhampton.
Week 8 - 29 Apr 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Circulation and Gas Exchange	Study Guide Week 8	Online Theory Quiz C closes (Monday 8AM AEST) Online Practical Quizzes Due: Week 8 Monday (29 Apr 2024) 11:59 pm AEST
Week 9 - 06 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Defence and Protection	Study Guide Week 9	
Week 10 - 13 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Locomotion	Study Guide Week 10	Online Theory Quiz D closes (Monday 8AM AEST) Written Assessment: Mythical Creature Due: Week 10 Monday (13 May 2024) 11:59 pm AEST
Week 11 - 20 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Signaling and Coordination	Study Guide Week 11	
Week 12 - 27 May 2024		
Module/Topic	Chapter	Events and Submissions/Topic
Ecophysiology and Unit Review	Study Guide Week 12	Online Theory Quiz E closes (Monday 8AM AEST)
Review/Exam Week - 03 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic
		End of Term Online Quiz Due: Review/Exam Week Tuesday (4 June 2024) 8:00 am AEST
Exam Week - 10 Jun 2024		
Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Online Theory Quizzes

Assessment Type

Online Quiz(zes)

Task Description

Online Theory Quizzes are based on lecture and study material (so please revise the lecture and reading material associated with the weeks covered by the quiz).

For ALL students, the Online Theory Quizzes open the Friday after the weeks covered in the quiz (e.g. Theory Quiz A covers material in Weeks 1 and 2 and so opens on Friday in Week 2) and is open for 1 week + 1 weekend.

You have 30 minutes to complete each Online Theory Quiz; make sure to submit your answers within the 30 minutes.

You can attempt each quiz a second time, but there is a 60 minute enforced delay between attempts and your highest score of the attempt/s will be the score recorded. You must make the attempt while the quiz is open.

Questions are true/false, multiple choice, mix-and-match and other formats. Because the questions are drawn at random from a question bank, you will most likely receive different questions if you make a second attempt, and you will likely receive different questions from your peers. You may not share your quiz questions with other students as this may disadvantage other students and it will be considered academic misconduct.

Number of Quizzes

5

Frequency of Quizzes

Other

Assessment Due Date

Weeks 3, 6, 8, 10 and 12.

Return Date to Students

On completion of the quiz.

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

Your answers will be marked on completeness and correctness of answers.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Describe the function of the major organ systems in plants and animals
- Perform a range of practical procedures in the laboratory and the field relating to the physiology of plants and animals.

Graduate Attributes

- Problem Solving
- Information Technology Competence

2 Written Assessment: Mythical Creature

Assessment Type

Written Assessment

Task Description

You will be asked to select and describe the biology of a mythical creature. Your task is to write an essay of

approximately 1000 to 1500 words about the creature, using all of the unit content from weeks one to ten. Specifically, we would like you to describe how the mythical creature could exist on Earth and perform the functions that it does, based on your knowledge of the biological content of this unit.

You are expected to consult the textbook and other resources such as journal articles, credible online web sources and books when preparing your assignment. You must cite at least 4 scientific journals that are related to the proposed physiology of the mythical creature you have chosen.

Please describe your creature in an email to the unit coordinator by the end of Week 2. The coordinator will confirm your choice of creature by return email. You may not use a creature that is a hybrid of two or more real-life creatures (e.g. centaur, griffin) or a creature too similar to existing or extinct taxa (e.g. Yeti, dinosaur).

Assessment Due Date

Week 10 Monday (13 May 2024) 11:59 pm AEST

Return Date to Students

Week 12 Monday (27 May 2024)

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

A comprehensive assessment criteria sheet and marked exemplar are available on Moodle.

You will be assessed on:

1. Information literacy (finding and using at least 4 citations/references appropriate to the subject matter and from scientific journals) 10%;
2. Problem solving (your ability to come up with creative and feasible ideas about how the mythical creature functions) 30%;
3. Critical thinking (your ability to correctly apply your knowledge of Animal and Plant Physiology in a new and unfamiliar context) 30%;
4. Communication (your ability to write using grammatically correct, clear and concise Australian English and to demonstrate your ability to adhere to discipline-specific academic conventions such as biological nomenclature and referencing of sources) 30%.

Referencing Style

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

Submission

Online

Submission Instructions

Students are required to submit their assessment through TurnItIn online as one MS Word document, including all figures, tables and references.

Learning Outcomes Assessed

- Discuss the relationship between the structure and function of living organisms
- Apply the concepts of homeostasis to various organ systems in plants and animals
- Discuss the evolution and adaptation of plant and animal function in relation to the environment

Graduate Attributes

- Communication
- Information Literacy

3 Online Practical Quizzes

Assessment Type

Practical Assessment

Task Description

After completing Practicals 1-6 at the Residential School/Block Practical in Rockhampton, you will be required to undertake 6 ten-minute, multiple choice Online Practical Quizzes on Moodle.

You have 10 minutes to complete each Online Practical Quiz; make sure to submit your answers within the 10 minutes. You can attempt each Online Practical Quiz a second time, but there is a 60 minute enforced delay between attempts and your highest score of the attempt/s will be the score recorded. You must make the attempt while the quiz is open. Questions are true/false, multiple choice, mix-and-match and other formats. Because the questions are drawn at random from a question bank, you will most likely receive different questions if you make a second attempt, and you will likely

receive different questions from your peers. You may not share your quiz questions with other students as this may disadvantage other students and it will be considered academic misconduct.

Students must attend the Residential School/Block Practicals before attempting the Online Practical Quizzes. To pass this assessment, you must obtain 50% of the marks or above for the combined six quizzes (for example, if there are 6 quizzes worth 10 pts each (60 pts total for the assessment), you must get a total of 30 points or above to pass the assessment).

Assessment Due Date

Week 8 Monday (29 Apr 2024) 11:59 pm AEST

Return Date to Students

Week 8 Monday (29 Apr 2024)

Results will be available upon completion of each quiz.

Weighting

Pass/Fail

Minimum mark or grade

50%

Assessment Criteria

You will be marked on completeness and correctness of answers.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Perform a range of practical procedures in the laboratory and the field relating to the physiology of plants and animals.

Graduate Attributes

- Problem Solving
- Team Work

4 End of Term Online Quiz

Assessment Type

Online Quiz(zes)

Task Description

You will only get one attempt to complete the End of Term Online Quiz and have 90 minutes to complete it once you start. You may complete the quiz anytime within the 24 hour window it is open (please begin 90 minutes before the closing time to give yourself the full time to complete the quiz). The quiz is worth 75 marks, and the marks are divided in the following manner:

- 5 Sections and each section has one 1 mark question, one 4 mark question, and one 10 mark question (15 marks per section, 75 marks total).

The questions in each section are selected from a question bank and are balanced for difficulty and type. The marks are a relative guide to how long is required to answer each question (1 mark ~ 1 minute). For each question, type your answer in the box provided. It is an open book quiz, but your answers must be your own work, I will be checking answers against answers available in textbooks or on Google/Reddit/Duck Duck Go/etc. Spelling and grammar are not my primary concern in marking (you won't lose marks for misspelling or poor punctuation), but you will not get full marks if your ideas are hindered or obscured by poor spelling/grammar.

Some questions ask you to submit a hand-drawn sketch with your answer. **Before beginning the quiz, you must have a digital camera/smart phone to take pictures with and a means to upload the images to moodle from that camera before the quiz attempt ends.** Please confirm that you can transfer pictures from your camera or phone to your computer before you begin. If you need to, you may email photos of your drawings to the Unit Coordinator. Please write your initials and the question # on the drawing and email them within the time you are taking the quiz.

Answers must be your own words/work and not copied from internet sources or created from AI generators. Answers will be checked at random against internet sources and AI text detection tools are available for faculty use. The questions are simple enough you're better off just answering them on your own anyway.

Number of Quizzes

1

Frequency of Quizzes

Other

Assessment Due Date

Review/Exam Week Tuesday (4 June 2024) 8:00 am AEST

The End of Term Online Quiz will open Monday 3 June at 8:00 am AEST and close Tuesday 4 June at 8:00 am AEST.

Return Date to Students

Exam Week Friday (14 June 2024)

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

You will be marked on completeness and correctness of answers.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Describe the function of the major organ systems in plants and animals
- Discuss the relationship between the structure and function of living organisms
- Apply the concepts of homeostasis to various organ systems in plants and animals
- Discuss the evolution and adaptation of plant and animal function in relation to the environment

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking

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