ZOOL13015 *Environmental Physiology of Animals*
Term 1 - 2020

Profile information current as at 26/04/2024 07:39 am

All details in this unit profile for ZOOL13015 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.

Corrections

Unit Profile Correction added on 06-05-20
The end-of-term examination now has been changed to an alternate form of assessment. Please see your Moodle site for details of the assessment.

General Information

Overview
In Environmental Physiology of Animals you will study the physiological adaptations of animals that enable them to inhabit a range of environments and how animals can respond to environmental challenges such as climate change. You will also conduct independent literature research and examine a range of procedures and technologies used to research the environmental physiology of animals.

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
BIOL11100 or BIOL12112
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

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: 40%
2. **Practical Assessment**
Weighting: 20%
3. **Examination**
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.

Unit Learning Outcomes

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

1. Describe the functioning and control of physiological systems in a range of animals
2. Explain the physiological responses of animals to a range of environmental challenges
3. Present, analyse and interpret physiological data
4. Demonstrate a range of practical skills relevant to the study of environmental physiology.

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
1 - Written Assessment - 40%	•	•		
2 - Practical Assessment - 20%	•	•	•	•
3 - Examination - 40%	•	•		

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 - Practical Assessment - 20%	•	•		•	•	•		•		

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
3 - Examination - 40%	•	•	•							

Textbooks and Resources

Textbooks

ZOOL13015

Prescribed

Principles of Animal Physiology
Edition: 3rd (2016)
Authors: Moyes, CD & Schulte PM
Pearson
Toronto , Canada
ISBN: 978-0-321-83817-9
Binding: Hardcover

Additional Textbook Information
Hardcover is not essential. eBook could be available. Latest edition.
Paper copies are available for purchase at the CQUni Bookshop here: http://bookshop.cqu.edu.au (search on the Unit code)

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Microsoft Excel
- Microsoft Word
- Recent computer/laptop with sufficient hard drive & memory size & processing speed, plus adequate Internet access and connection reliability to facilitate significant uploads/downloads/video streaming and sustained lengthy connections (e.g. lecture downloads, real time oral presentations conference), with microphone and speakers (built-in or external) OR microphone+speaker headset (approx. maximum cost $20 for adequate cheap set).

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
Guy Carton Unit Coordinator
a.carton@cqu.edu.au

Schedule

Week 1 - 09 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to basic principles of animal physiology	*Moyes & Schulte* Chap 1 (pp. 2-18)	Introduce yourself to everyone on the General Discussion Forum.

Week 2 - 16 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Energy and Nutrition (animal metabolism)	*Moyes & Schulte* Chap 3 pp. 38-77, and Chap 14 'Digestion and energy balance' pp. 628-631 only	Identify which group of animals you will be researching for your literature review assessment (see Moodle site firstly) and notify your unit coordinator by email of your choice.

Week 3 - 23 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Osmoregulation, ionoregulation and excretion	*Moyes & Schulte* Chap 13 'Ion and water balance' (pp. 542-591)	

Week 4 - 30 Mar 2020

Module/Topic	Chapter	Events and Submissions/Topic
Respiration and associated circulation	*Moyes & Schulte* Chap 9 'Circulatory systems' pp. 356-412 (pp. 382-408 primarily for revision) and Chap 11 'Respiratory systems' pp. 442-497 (pp. 470-472, 486-488 primarily for revision)	

Week 5 - 06 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Thermoregulation	*Moyes & Schulte* Chap 15 'Thermal physiology' pp. 634-666	

Vacation Week - 13 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 20 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Nerve and muscle physiology	*Moyes & Schulte* (Chap 3 'Cell physiology' pp. 77-86 primarily for revision), Chap 5 'Neuron structure and function' pp. 154-206 and Chap 6 'Cellular movement and muscles' pp. 208-255 (pp. 210-217 for context only)	

Week 7 - 27 Apr 2020

Module/Topic	Chapter	Events and Submissions/Topic
Hormones, pheromones, and reproduction	*Moyes & Schulte* Chap 4 'Cell signalling and endocrine regulation' pp. 98-152 as background for Chap 16 'Reproductive physiology' pp. 668-699	All students prepare for Compulsory Combined Block Practicum (Residential School): 5-7 May 2020 inclusive (next week). Download and read Laboratory Practical Manual (bring it with other materials to our CBP).

Week 8 - 04 May 2020

Module/Topic	Chapter	Events and Submissions/Topic

Life in water (marine, brackish, and freshwater habitats)	*Moyes & Schulte* - no single relevant chapter but brings together various parts of readings to date.	Compulsory Combined Block Practicum (Residential School): 5-7 May 2020 inclusive. Your Laboratory Log Book must be completed and submitted before leaving your Combined Block Practicum (CBP) laboratory. **Laboratory Log Book** Due: Week 8 Thursday (7 May 2020) 5:00 pm AEST
Week 9 - 11 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Life in air (terrestrial habitats)	*Moyes & Schulte* - no single relevant chapter but brings together various parts of readings to date plus Chap 12 'Locomotion' pp. 498-541	Your Literature Review assignment is due for submission next week.
Week 10 - 18 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Life under pressure	*Moyes & Schulte* - no single relevant chapter but brings together various parts of readings to date, plus more.	**Literature Review** Due: Week 10 Monday (18 May 2020) 11:45 pm AEST
Week 11 - 25 May 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
More physics for life	*Moyes & Schulte* - no single relevant chapter but brings together various parts of readings to date, plus more.	
Week 12 - 01 Jun 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
More chemistry for life	*Moyes & Schulte* - no single relevant chapter but brings together various parts of readings to date, plus more.	
Review/Exam Week - 08 Jun 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Revision. Exams begin Thursday 11 June 2020.		
Exam Week - 15 Jun 2020		
Module/Topic	**Chapter**	**Events and Submissions/Topic**

Assessment Tasks

1 Literature Review

Assessment Type
Written Assessment

Task Description
You are required to write a 4,000 to 5,000 word literature review on the following topic:
choose one (1) group of Australian animals from the list below and discuss the physiological and behavioural adaptations of its members to their environment. Additionally, use this information to describe their potential to adapt to the expected impacts of accelerated climate change.

1. Flying Foxes
2. Tasmanian Devils
3. Wombats
4. Dunnarts

More information will be available on our unit Moodle site.

Assessment Due Date
Week 10 Monday (18 May 2020) 11:45 pm AEST

Return Date to Students
Week 12 Monday (1 June 2020)

Weighting
40%

Minimum mark or grade
45%

Assessment Criteria
Marks will be awarded for writing skills (10%), comprehensiveness of content applied to topic (50%), content applied specifically to accelerated climate change impacts (15%), evidence of research (15%), and correct and adequate source citation and appropriate use of sources (10%). Plagiarism and weak paraphrasing of text will not be tolerated and will result in loss of marks etc. following CQUniversity policy. The marking rubric will be available on our unit Moodle site.

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Describe the functioning and control of physiological systems in a range of animals
- Explain the physiological responses of animals to a range of environmental challenges

Graduate Attributes

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

2 Laboratory Log Book

Assessment Type
Practical Assessment

Task Description
You are required to submit your Laboratory Log Book, including experimental data, calculations and answers to questions, before leaving your Combined Block Practicum (residential school). Further details will be provided on our unit Moodle site and discussed at your Combined Block Practicum (CBP).

Assessment Due Date
Week 8 Thursday (7 May 2020) 5:00 pm AEST
You are required to submit your laboratory log book before leaving your Combined Block Practicum (residential school) laboratory and by 5.00pm Thursday 7 May 2020.

Return Date to Students
Week 10 Thursday (21 May 2020)

Weighting
20%

Minimum mark or grade
45%

Assessment Criteria
Marks will be awarded out of a maximum 30 marks for presentation quality (maximum 10 marks), completeness (maximum 10 marks) and accuracy (maximum 10 marks) of content (including data tables and graphs, calculations, and quality and answers to questions) as guided by laboratory practical manual (which will be provided on our unit Moodle site).

Referencing Style

- Harvard (author-date)

Submission
Offline

Submission Instructions
Log books must be handed to the Unit Coordinator before leaving the laboratory of the Combined Block Practicum (residential school).

Learning Outcomes Assessed

- Describe the functioning and control of physiological systems in a range of animals
- Explain the physiological responses of animals to a range of environmental challenges
- Present, analyse and interpret physiological data
- Demonstrate a range of practical skills relevant to the study of environmental physiology.

Graduate Attributes

- Communication
- Problem Solving
- Information Literacy
- Team Work
- Information Technology Competence
- Ethical practice

Examination

Outline
Complete an invigilated examination.

Date
During the examination period at a CQUniversity examination centre.

Weighting
40%

Length
120 minutes

Minimum mark or grade
45%

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