COURSE OUTLINE

ANM201 Animal Ecophysiology

School: School of Science, Technology and Engineering

2024 | Semester 2

UniSC Sunshine Coast
UniSC Moreton Bay

BLENDED LEARNING

Most of your course is on campus but you may be able to do some components of this course online.

Please go to usc.edu.au for up to date information on the teaching sessions and campuses where this course is usually offered.

1. What is this course about?

1.1. Description

In this course, you will explore animal ecophysiology and its modern applications in theory, in the laboratory, and in the field. Emphasis will be on: the strategies that animals have evolved to meet the physiological challenges associated with the environments they inhabit; how this helps scientists to understand the distribution of animals across land and seascapes; and how this in turn aids thinking on conservation and management of animal populations in the face of escalating anthropogenic impacts.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Tutorial/Workshop 1 – Tutorials will be conducted physically on campus	2hrs	Week 1	13 times
Laboratory 1 – Laboratories will be delivered on campus, and a PC1 wet lab.	2hrs	Week 2	6 times
Information session – Online session to be delivered in odd weeks, live via zoom.	1hr	Week 1	7 times
Learning materials – Asynchronous learning material	1hr	Week 1	13 times

1.3. Course Topics

Homeostasis: water and ion regulation

Kidneys and excretion: adaptations to dry environments

Scaling: Getting big

Metabolism: effects of size and habitat

Temperature regulation: Adaptations to cold and hot climates

Breathing, circulation and Gas exchange

Eating and digestion

Sensory systems

Muscle and speed

Gait and climbing

Swimming and flying

Evolution of Sex

2. What level is this course?

200 Level (Developing)

Building on and expanding the scope of introductory knowledge and skills, developing breadth or depth and applying knowledge and skills in a new context. May require pre-requisites where discipline specific introductory knowledge or skills is necessary. Normally, undertaken in the second or third full-time year of an undergraduate programs.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES On successful completion of this course, you should be able to...		GRADUATE QUALITIES Completing these tasks successfully will contribute to you becoming...
1	Demonstrate and apply knowledge in animal ecophysiology	Knowledgeable Creative and critical thinker
2	Design, implement and record the results of, experiments in animal ecophysiology and critically analyse the results.	Creative and critical thinker Empowered
3	Research, organise, scientifically communicate and present information about animal physiology in a creative and informative way.	Creative and critical thinker Empowered

5. Am I eligible to enrol in this course?

Refer to the UniSC Glossary of terms for definitions of “pre-requisites, co-requisites and anti-requisites”.

5.1. Pre-requisites

ANM103 and enrolled in Program SB303, SC320

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

5.4. Specific assumed prior knowledge and skills (where applicable)

Basic computer skills and ability to download files, and navigate a desktop environment. Knowledge of excel.

6. How am I going to be assessed?

6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

6.2. Details of early feedback on progress

In week 5 you will be given an online quiz with multiple choice questions based upon course content, which reflect the style and detail required for the end of semester exam. These questions are non-weighted and are there to provide early feedback on the course

6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Practical / Laboratory Skills	Individual	30%	6 x 300-400 words	Throughout teaching period (refer to Format)	In Class
All	2	Quiz/zes	Individual	0%	20 minutes	Week 5	Online Submission
All	3	Essay	Individual	30%	2000 words	Week 13	Online Assignment Submission with plagiarism check
All	4	Examination - Centrally Scheduled	Individual	40%	2 hr ~ 1000 words	Exam Period	Online Submission

All - Assessment Task 1: Laboratory-activity worksheets

GOAL:	This task is designed to develop your critical analysis skills in animal ecophysiology. You will design, implement and record the results of experiments in animal ecophysiology
PRODUCT:	Practical / Laboratory Skills
FORMAT:	You will individually complete six laboratory-activity worksheets during scheduled laboratory classes. Worksheets could include written responses to questions, scientific drawings, calculations, graphing and interpretation of experimental results. Weeks 2,4,6,8, 12 and 13.
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Solve problems in animal ecophysiology; and Communicate your understanding of theoretical concepts or your interpretation of experimental results in an accurate manner — 2
GENERIC SKILLS:	

All - Assessment Task 2: Online Quizz

GOAL:	This online quiz will allow you to practice and demonstrate your understanding of animal ecophysiology Course topics and concepts up to and including week 5. This quiz is important as it will give you feedback and will indicate the types of questions you will encounter on the final exam.
PRODUCT:	Quiz/zes
FORMAT:	Individual students will complete a non-weighted online multiple choice quiz by the due date
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Knowledge of animal ecophysiology — 1
GENERIC SKILLS:	

All - Assessment Task 3: Animal ecophysiology essay

GOAL:	This task requires you to pull all of your ecophysiology knowledge together to assess a mythical creature. You will be required to estimate the morphology and physiology of any mythical creature you choose. You will discuss 3 key features of this creature which may or may not be biologically possible using your knowledge of animal ecophysiology.
PRODUCT:	Essay
FORMAT:	You will consider several aspects of the ecophysiology of your creature. This will involve an essay-style discussion on a subset of 3 systems, from the skeletal, musculature, sensory, nervous, circulatory, digestive and reproductive systems. This will be accompanied by a figure illustrating your creature
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Apply knowledge in animal ecophysiology Use relevant research Organise scientific data Communicate scientific data Presentation - creative — 3
GENERIC SKILLS:	Communication, Problem solving, Information literacy

All - Assessment Task 4: End of semester examination

GOAL:	This exam will will allow you to demonstrate your understanding of animal ecophysiology course topics and concepts.
PRODUCT:	Examination - Centrally Scheduled
FORMAT:	The final exam is a comprehensive, two (2) hour final examination, consisting of multiple choice and short answer style questions. The examination is closed book. Formative fortnightly multiple choice style quizzes will be available on Canvas to help you to gauge your progress with your learning in the course and familiarise yourself with the level of expectation of content knowledge.
CRITERIA:	**No.** — **Learning Outcome assessed** 1 Demonstrate and communicate knowledge of the theory of animal physiology. — 1
GENERIC SKILLS:	Communication, Organisation, Information literacy

7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

8.1. Prescribed text(s) or course reader

> There are no required/recommended resources for this course.

8.2. Specific requirements

Students are required to bring their own hat and suitable covered clothing and footwear on field outings. Laboratory coats and covered footwear are required for laboratory access.

9. How are risks managed in this course?

Risk assessments have been performed for all laboratory classes and a moderate level of health and safety risk exists. Moderate risks are those associated with laboratory work such as working with chemicals and hazardous substances. You will be required to undertake laboratory induction training and it is also your responsibility to review course material, search online, discuss with lecturers and peers and understand the health and safety risks associated with your specific course of study and to familiarise yourself with the University's general health and safety principles by reviewing the online induction training for students, and following the instructions of the University staff

10. What administrative information is relevant to this course?

10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

10.2. Assessment: Additional Requirements

Eligibility for Supplementary Assessment

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying:

The final mark is in the percentage range 47% to 49.4%
The course is graded using the Standard Grading scale
You have not failed an assessment task in the course due to academic misconduct

10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate:
- 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task.
- 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task.
- A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

10.4. SafeUniSC

UniSC is committed to a culture of respect and providing a safe and supportive environment for all members of our community. For immediate assistance on campus contact SafeUniSC by phone: 07 5430 1168 or using the SafeZone app. For general enquires contact the SafeUniSC team by phone 07 5456 3864 or email safe@usc.edu.au.

The SafeUniSC Specialist Service is a Student Wellbeing service that provides free and confidential support to students who may have experienced or observed behaviour that could cause fear, offence or trauma. To contact the service call 07 5430 1226 or email studentwellbeing@usc.edu.au.

10.5. Study help

For help with course-specific advice, for example what information to include in your assessment, you should first contact your tutor, then your course coordinator, if needed.

If you require additional assistance, the Learning Advisers are trained professionals who are ready to help you develop a wide range of academic skills. Visit the Learning Advisers web page for more information, or contact Student Central for further assistance: +61 7 5430 2890 or studentcentral@usc.edu.au.

10.6. Wellbeing Services

Student Wellbeing provide free and confidential counselling on a wide range of personal, academic, social and psychological matters, to foster positive mental health and wellbeing for your academic success.

To book a confidential appointment go to Student Hub, email studentwellbeing@usc.edu.au or call 07 5430 1226.

10.7. AccessAbility Services

Ability Advisers ensure equal access to all aspects of university life. If your studies are affected by a disability, learning disorder mental health issue, injury or illness, or you are a primary carer for someone with a disability or who is considered frail and aged, AccessAbility Services can provide access to appropriate reasonable adjustments and practical advice about the support and facilities available to you throughout the University.

To book a confidential appointment go to Student Hub, email AccessAbility@usc.edu.au or call 07 5430 2890.

10.8. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching

10.9. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The Student Charter sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

10.10. General Enquiries

In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

Tel: +61 7 5430 2890

Email: studentcentral@usc.edu.au