

ENS500

Coastal and Marine Ecology

School: School of Science, Technology and Engineering

2024 | Semester 1

UniSC Sunshine Coast

**BLENDED
LEARNING**

You can do this course without coming onto campus, unless your program has specified a mandatory onsite requirement.

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

The oceans harbour a greater diversity of life than any other biome of the planet. In this course you will learn about the diversity of marine habitats, the species inhabiting them, and the physical and chemical factors influencing marine ecosystems. We shall explore rocky shores, sandy beaches, estuaries, mangrove wetlands, reefs and open-water ecosystems. We will emphasise the seminal contributions that marine ecology has made to the broader field of ecology, and teach you fundamental skills in the scientific investigation of marine and coastal ecosystems.

1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
BLENDED LEARNING			
Learning materials – Learning materials that provide fundamental knowledge about how the ocean works and how coastal ecosystems are structured and function. Learning materials typically include online videos of varying length, readings and quizzes.	1hr	Week 1	13 times
Tutorial/Workshop 1 – On-campus workshops support learning materials, introduce the content to be covered on field trips and support students in completing the major assessments.	2hrs	Week 1	8 times
Fieldwork – Fieldtrips support key concepts presented in both the learning materials and tutorials, and provide opportunities for students to apply their skills in a field setting	8hrs	Week 4	2 times

1.3. Course Topics

Ocean currents, winds and tides, estuaries, seagrasses, mangroves, reefs, seaweeds and kelps, climate change impacts, marine conservation ecology.

2. What level is this course?

500 Level (Advanced)

Engaging with new discipline knowledge and skills at an advanced level or deepening existing knowledge and skills within a discipline. Independent application of knowledge and skills in unfamiliar contexts.

3. What is the unit value of this course?

12 units

4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES				GRADUATE QUALITIES	
On successful completion of this course, you should be able to...				Completing these tasks successfully will contribute to you becoming...	
1	Communicate effectively and professionally to informed audiences.			Empowered Engaged	
2	Demonstrate and apply knowledge of major marine ecosystems and the forces that shape marine biodiversity.			Knowledgeable	
3	Critically analyse and evaluate field data to investigate basic ecological patterns in coastal ecosystems.			Creative and critical thinker Sustainability-focussed	

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

Enrolled in program SC523

5.2. Co-requisites

Not applicable

5.3. Anti-requisites

Not applicable

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

Not applicable

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

Online quizzes will be available throughout the semester in class, whereby students can submit answers to questions and receive formative feedback on current understanding of the material.

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	Literature Review (or component)	Individual	40%	max. 3000 words (excl. references)	Week 5	Online Assignment Submission with plagiarism check
All	2	Literature Review (or component)	Individual	40%	max. 1500 words (excl. references) or 10 minutes	Week 9	Online Assignment Submission with plagiarism check
All	3	Oral	Individual	20%	20 minutes and fewer than 30 slides	Week 12	Online Assignment Submission with plagiarism check

All - Assessment Task 1: Ecological Concept Synthesis

GOAL:	Students will be provided with publications that are considered to be of seminal influence for the discovery and development of a particular ecological theme in coastal and marine science. Under the course coordinator's guidance, students will further identify additional literature to form a focused and up-to-date collection of literature pertaining to a particular field, question, or environmental issue. Based on this, students will create a concise summary of the literature that provides a penetrating and modern view of critical scientific developments, pivotal ecological processes, and challenges of a particular topic (Note: themes will generally be related to contemporary management and conservation challenges in the coastal and nearshore environments of the region and beyond)		
PRODUCT:	Literature Review (or component)		
FORMAT:	The written synthesis will generally mimic a literature review published in a peer-reviewed scientific journal in the field of coastal and marine ecology (teaching staff will give you a few examples).		
CRITERIA:	No.		Learning Outcome assessed
	1	Demonstrate that you can locate key papers from the relevant literature, evaluate the currency and breadth of coverage of a topic in the literature, and identify any significant knowledge gaps.	1
	2	Demonstrate that you can distil the core structures and mechanisms defining a theme from the literature.	2
	3	Demonstrate that you can write using appropriate style and prose, correct punctuation and grammar, and consistent use of accurate, discipline-based vocabulary.	1
GENERIC SKILLS:	Communication, Applying technologies		

All - Assessment Task 2: Fact Sheet or Video Vignette

GOAL:	To produce a precis of an ecological process or structure. The precis will be educational and aimed at a broad audience. The coverage of the topic must be objective, and any conclusions drawn must be balanced and accurately reflect the ambit of information contained in the global, peer-reviewed literature.		
PRODUCT:	Literature Review (or component)		
FORMAT:	Students can choose to produce a short video or write a more conventional fact-sheet. Irrespective of the format, the emphasis must be on a visually-attractive piece that conveys key messages effectively and accurately.		
CRITERIA:	No.		Learning Outcome assessed
	1	Demonstrate that you can distil the information down to the core elements and fundamental aspects of available knowledge that define and describe a topic or issue.	1
	2	Demonstrate that you can create a communication product that is balanced and can be understood by a broad audience.	2
	3	Demonstrate that you can write using appropriate style and prose, correct punctuation and grammar, and consistent choice of accurate, discipline-based vocabulary.	1
GENERIC SKILLS:	Communication, Applying technologies, Information literacy		

All - Assessment Task 3: Seminar

GOAL:	To create and deliver a talk (oral presentation) that sketches the key features and characteristics of an ecological structure/system/process. The presentation should be brief enough to keep the audience engaged whilst expansive and detailed enough to cover the aspects that are essential for an understanding of the key messages.													
PRODUCT:	Oral													
FORMAT:	Whilst the 'standard' form of presentation that is widely used in science and business is a 20 min talk, supported by a suite of PowerPoint slides, here we are flexible: we have catholic tastes when it comes to communication and the arts (check with the course coordinator first). Thus students are free to choose any format as long as it is practical, professional, and respectful. For formal talks, students should aim for a maximum duration of 20 minutes (shorter is better) and limit their supporting slides to fewer than 30.													
CRITERIA:	<table><tr><th>No.</th><th></th><th>Learning Outcome assessed</th></tr><tr><td>1</td><td>Demonstrate that you can extract the salient messages from a larger body of information and can highlight the facets that define and describe a topic.</td><td>3</td></tr><tr><td>2</td><td>Demonstrate that you can communicate the essential facts to an audience in a form that contains accurate facts and is ethically sound.</td><td>1</td></tr><tr><td>3</td><td>Demonstrate that you can create communication material (e.g. slides, videos, audio recordings, interviews, sculptures, paintings, installations) that is original, engaging, and respectful.</td><td>1</td></tr></table>	No.		Learning Outcome assessed	1	Demonstrate that you can extract the salient messages from a larger body of information and can highlight the facets that define and describe a topic.	3	2	Demonstrate that you can communicate the essential facts to an audience in a form that contains accurate facts and is ethically sound.	1	3	Demonstrate that you can create communication material (e.g. slides, videos, audio recordings, interviews, sculptures, paintings, installations) that is original, engaging, and respectful.	1	
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GENERIC SKILLS:	Communication, Applying technologies, 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

none

9. How are risks managed in this course?

Risk assessments have been performed for all field activities and low to moderate levels of health and safety risk exists. Moderate risks may include working in an Australian bush setting, working with people, working outside normal office hours for example. It is 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

There is a 1% penalty for every day a submission is late.

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](tel:0754301168) or using the [SafeZone](#) app. For general enquires contact the SafeUniSC team by phone [07 5456 3864](tel:0754563864) 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](tel:0754301226) 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