



EESC1160

Blue Planet: Oceans, Climate and Life

Session 2, In person-scheduled-weekday, North Ryde 2024

School of Natural Sciences

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	4
<u>Delivery and Resources</u>	6
<u>Unit Schedule</u>	8
<u>Policies and Procedures</u>	9

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General Information

Unit convenor and teaching staff

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Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

Oceans cover more than 70% of Earth's surface; they are the unique feature of our blue planet which enabled the evolution of complex life, influences Earth's climate and weather, and provides food for much of the world's population. This unit introduces this exceptional environment through study of the oceans, with particular focus on ocean life and sustainable management of ocean resources. The unit considers: physical, biological and chemical oceanographic processes; waves and tides; marine life; climate change; and human interactions with the marine environment for a sustainable future. Students will be introduced to marine environmental issues via a field trip. This unit pairs well with ENV51017 The Living Environment and EESC1150 Planet Earth.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

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

ULO1: use the physical and chemical properties of seawater to predict the distribution and characteristics of marine life.

ULO2: demonstrate knowledge of coastal and oceanic processes to understand how life below water can be sustainably managed.

ULO3: display competency in collecting and communicating scientific data to address environmental issues in marine science and management.

General Assessment Information

Assessment Criteria

Assessment at Macquarie University is standards-based, as outlined in the [Assessment Policy](#). This means that your work will be assessed against clear criteria, and these criteria (e.g. in a rubric) will be made available when the assessment tasks are released to you on iLearn.

Submission of Assessments

All assessments must be submitted online through [Turnitin](#) unless otherwise indicated. Links for the submission of each assessment will be available on [iLearn](#).

You should always check that you have uploaded the correct file. If you have a problem, please email the Unit Convenor with your correct file. You must also keep a copy of your assessments until the end of semester in case there is a problem with your submission. It is your responsibility to ensure that you can provide a copy of your assessment if requested.

Marking of Assessments

Assignments will usually be marked through Turnitin with grades provided through Gradebook on iLearn. Please do not submit your assessments via email or in hard copy unless requested (e.g. a sketch or drawing).

We aim to return your assessment grades and feedback within two to three weeks of the date that you submitted it. We appreciate your patience and will advise you through iLearn when your marked assessments and feedback are available for viewing.

Late Assessment Submission Penalty

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is **11:55 pm**. A 1-hour grace period will be provided to students who experience a technical concern.

For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance

assessments/presentations, and/or scheduled practical assessments/labs, please apply for [Special Consideration](#).

Assessments where Late Submissions will be accepted

- Ocean processes report - YES, Standard Late Penalty applies
- Case study report - YES, Standard Late Penalty applies
- Practical tests - NO, unless Special Consideration is Granted

Extensions for Assessments

To obtain an extension for an assessment task, you will need to follow the formal process as outlined in the [Special Consideration Policy](#), and you must provide appropriate supporting evidence (e.g. medical certificate - see advice for [Special Consideration](#) requests). The final decision regarding the granting of an extension lies with the unit convenor. Permission for extensions must be sought **before the due date** unless there are exceptional circumstances. Please let us know of problems in advance or as soon as possible, not after the event. We are likely to be much more sympathetic and able to accommodate your circumstance if you follow this advice.

Special Consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through ask.mq.edu.au.

Requirements to Pass this Unit

To pass this unit you should make a reasonable attempt of all assessments, and must achieve a total mark equal to or greater than 50%

Assessment Tasks

Name	Weighting	Hurdle	Due
Ocean processes report	20%	No	2024-09-06
Multiple In-class Practical Tests	40%	No	Weeks 3, 6, 9, 12
Fieldtrip report	40%	No	2024-11-01

Ocean processes report

Assessment Type ¹: Report

Indicative Time on Task ²: 24 hours

Due: **2024-09-06**

Weighting: **20%**

Report evaluating ocean processes.

On successful completion you will be able to:

- use the physical and chemical properties of seawater to predict the distribution and characteristics of marine life.
- demonstrate knowledge of coastal and oceanic processes to understand how life below water can be sustainably managed.
- display competency in collecting and communicating scientific data to address environmental issues in marine science and management.

Multiple In-class Practical Tests

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 24 hours

Due: **Weeks 3, 6, 9, 12**

Weighting: **40%**

The practical tests will assess theoretical and applied knowledge from the workshops and fieldtrip.

On successful completion you will be able to:

- use the physical and chemical properties of seawater to predict the distribution and characteristics of marine life.
- demonstrate knowledge of coastal and oceanic processes to understand how life below water can be sustainably managed.
- display competency in collecting and communicating scientific data to address environmental issues in marine science and management.

Fieldtrip report

Assessment Type ¹: Case study/analysis

Indicative Time on Task ²: 24 hours

Due: **2024-11-01**

Weighting: **40%**

Report exploring a marine environmental issue introduced during the fieldtrip.

On successful completion you will be able to:

- use the physical and chemical properties of seawater to predict the distribution and characteristics of marine life.
- demonstrate knowledge of coastal and oceanic processes to understand how life below water can be sustainably managed.
- display competency in collecting and communicating scientific data to address environmental issues in marine science and management.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

Unit iLearn

This unit has an iLearn page that can be accessed through ilearn.mq.edu.au. It contains important information and other materials relating to the unit, including details and links for assessments.

Methods of Communication

The unit iLearn is the primary way that we communicate with you. Please check it regularly for announcements and posts. You are encouraged to use the Discussion Board on iLearn to post questions and generate discussion with other students. Please only email the convenor with private matters – ***all other questions should be posted on iLearn.***

Unit Organisation

This unit is delivered in as several inter-related modules. The organisation of these is outlined in a detailed unit schedule which is available on [iLearn](#). The class will be delivered through iLearn, workshops as well as recommended readings. In addition, you are encouraged to do your own research.

Classes

Workshops start in WEEK 1. The class timetable for this unit can be found through the [Timetable](#) portal. You should also check the unit schedule as some weeks may have other instructions or locations. You will need to bring a laptop to every workshop and lab coats will be provided if

necessary.

Workload

The expected workload for this 10-credit point unit is 150 hours of activity, including workshops, readings, in-class practical tests and research and writing of assignments.

Requirements to complete this unit satisfactorily

To complete this unit satisfactorily, you must:

1. Participate in all scheduled classes;
2. Complete all assessments and in-class practical tests; and
3. Achieve a pass grade or higher.

The descriptions for grades common to all coursework units offered by Macquarie University are outlined in [Schedule 1 of the Assessment Policy](#).

Textbook

We will be using Segar's "Introduction to Ocean Science (4th Edition)" - available via the authors website - as the primary textbook for EESC1160. Textbooks usually cost well over \$100, but the author of this text has chosen to make it freely available. However, we do ***ask that you contribute a few dollars for the book through PayPal (info is on the book download page) to help the author cover costs of keeping this excellent resource up to date.*** We also highly recommend O'Connell & Gillander's "Marine Ecology". Additional readings will be made available via Leganto as required.

Please remember that the recommended readings are compulsory, you will have to keep on top of these to do well in EESC1160.

Technology Used and Required

This unit will use iLearn and Echo360. See the [Instructions on how to log in to iLearn](#) and the [iLearn quick guides for students](#) which will help you:

- [Getting started](#) - Find out how to navigate and familiarise yourself with the iLearn environment
- [Activities](#) - Learn how to effectively complete the activities required of you in iLearn
- [Assignments and Gradebook](#) - Find out how to submit assessments and view your grades using iLearn
- [Online study tips](#) - Studying online is a unique experience, learn how to navigate it here
- [Discussion forums](#) - Explore the different types, and features of discussion forums in iLearn
- [Lecture recordings](#) - Find out how to access lectures online, as well as the features available to you

Covid Information

For the latest information on the University's response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website: <https://www.mq.edu.au/about/coronavirus-faqs>. Remember to check this page regularly in case the information and requirements change during semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.

Unit Schedule

Week	Date	Workshop 1	Workshop 2	Assessment Tasks
1 (30)	22 Jul	Unit introduction (KD)	Waves and tides (KD)	
2 (31)	29 Jul	Life in the ocean (KD)	Marine chemistry (KD)	
3 (32)	5 Aug	Life in the ocean (KD)	Experimental method Practical test 1 (KD)	Practical test 1: Linking biology to chemistry (10%)
4 (33)	12 Aug	Fisheries (KD)	Mapping the ocean (KD)	
5 (34)	19 Aug	Plate tectonics (CP)	Plate tectonics (CP)	
6 (35)	26 Aug	Fossils, palaeocontinents & ancient oceans (CP)	Data collection and QA/QC Practical test 2 (CP)	Practical test 2: Mapping the ocean (10%)
7 (36)	2 Sep	Marine applications of satellite data (MM)	Aquaculture (KD)	Assignment 1: Ocean processes report due (20%)
Field trip to the Sydney Institute of Marine Science 9th September				
8 (37)	9 Sep	Visualising climate impacts and indicators (MM)	Climate change and life in the oceans (KD)	
9 (40)	30 Sep	Satellite oceanography (MM)	Ocean colour Practical test 3 (MM)	Practical test 3: Remote sensing the ocean (10%)
10 (41)	7 Oct	Marine spatial planning (KD)	Marine Protected Areas Graph descriptions (KD)	
11 (42)	14 Oct	Pollution and life in the ocean (KD)	The Ocean Decade (KD)	
12 (43)	21 Oct	Oil spills and response (KD)	Referencing Practical test 4 (KD)	Practical test 4: Marine environmental issues (10%)

13 (44)	28 Oct	No class in lieu of fieldtrip	Assignment 2: Case study report (40%)
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Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Unit information based on version 2024.01R of the **Handbook**