EESC2160
Climate and Oceans
Session 2, Weekday attendance, North Ryde 2021
Department of Earth and Environmental Sciences

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Notice
Some on-campus classes have moved online for the first two weeks of Session, before returning to campus in Week 3. If you are studying a unit outside of the primary Session 2 timetable, please contact your teaching staff team for further details.

Some classes/teaching activities cannot be moved online and must be taught on campus. To find out if you are enrolled in one of these classes/teaching activities, you can check to see if your unit is on the list of units with mandatory on-campus classes/teaching activities.

Your Unit Convenor will provide more information via an iLearn announcement when your iLearn unit becomes available.
General Information

Unit convenor and teaching staff

Unit Convenor
Scott Wilson
scott.p.wilson@mq.edu.au
Room 438, 12 Wally’s Walk

Neil Saintilan
neil.saintilan@mq.edu.au

Credit points
10

Prerequisites
(ENVE117 or ENVS117 or ENVS1017 or GEOS117 or GEOS112 or GEOS1110 or GEOS126 or EESC1160) or 10cp in PHYS units at 1000 level

Corequisites

Co-badged status

Unit description
The Earth’s climate and oceans are intimately linked and are fundamental to life on this planet. This unit explores the climate system and the role that oceans play in regulating climate. The unit examines climate and ocean interactions and processes on a range of spatial scales (local to global) and time scales (daily to decadal and millennial). The unit includes a field trip that introduces students to evidence of climate drivers and responses in marine and coastal habitats such as sea-level rise impacts and adaptation.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at https://students.mq.edu.au/important-dates

Learning Outcomes

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

ULO1: Demonstrate an understanding of the fundamental links between the climate and oceans to interpret climate-ocean interactions and processes.
ULO2: Apply data collected from measuring and modelling climate-ocean interactions to understand mechanisms of climate and ocean variability.

ULO3: Demonstrate effective individual and team work skills in climate-ocean science to understand and solve real-world environmental problems in both the field and laboratory.

ULO4: Draw on and synthesise appropriate sources of information to communicate ideas about climate drivers and responses in marine and coastal habitats.

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.

Penalties for Late Assessments

The penalty for late submission of assessments in this unit is ten percent (10%) of the assessment value per day, calculated from the due time and date. This means that if the assignment is worth a total of 30 marks (or 30% of the unit) you will lose 3 marks for each day it is late. This is a hefty penalty designed to make you aware of the importance of organising yourself around assessment due dates. The penalty will be applied over weekdays and weekends unless you have been granted an extension prior to the due date.

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.

## Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>30%</td>
<td>No</td>
<td>10th September &amp; 28th October 2021</td>
</tr>
<tr>
<td>Practical report</td>
<td>20%</td>
<td>No</td>
<td>Between 7th August - 3rd September 2021</td>
</tr>
<tr>
<td>Fieldtrip report and presentation</td>
<td>50%</td>
<td>No</td>
<td>15th October (report) and 21st October (presentation)</td>
</tr>
</tbody>
</table>

### Quizzes

- Assessment Type: Quiz/Test
- Indicative Time on Task: 18 hours
- Due: 10th September & 28th October 2021
- Weighting: 30%

Assessment 1 involves two multiple-choice quizzes, each worth 15% of the final grade. Content can be from the lectures, practicals, fieldwork or assigned readings.

On successful completion you will be able to:

- Demonstrate an understanding of the fundamental links between the climate and oceans to interpret climate-ocean interactions and processes.
- Apply data collected from measuring and modelling climate-ocean interactions to understand mechanisms of climate and ocean variability.

### Practical report

- Assessment Type: Lab report
- Indicative Time on Task: 12 hours
- Due: Between 7th August - 3rd September 2021
- Weighting: 20%
Assessment 2 is a practical report worth 20% of the final grade. The report will include experimental data introduced during practicals that is presented with appropriate graphical representation and statistical analysis, and a conclusion drawing correct associations and inferences from the data. During this assessment task students will develop skills to apply to the fieldtrip report.

On successful completion you will be able to:

- Demonstrate effective individual and team work skills in climate-ocean science to understand and solve real-world environmental problems in both the field and laboratory.
- Draw on and synthesise appropriate sources of information to communicate ideas about climate drivers and responses in marine and coastal habitats.

**Fieldtrip report and presentation**

Assessment Type 1: Field work task  
Indicative Time on Task: 30 hours  
Due: 15th October (report) and 21st October (presentation)  
Weighting: 50%

Assessment 3 is a fieldtrip report and presentation based on a 2-day local fieldtrip, worth 50% of the final grade. The content of the report will include an Introduction, Methods, Results, Discussion, Acknowledgements and References. This will be translated to a non-scientific audience in group presentations.

On successful completion you will be able to:

- Demonstrate an understanding of the fundamental links between the climate and oceans to interpret climate-ocean interactions and processes.
- Apply data collected from measuring and modelling climate-ocean interactions to understand mechanisms of climate and ocean variability.
- Demonstrate effective individual and team work skills in climate-ocean science to understand and solve real-world environmental problems in both the field and laboratory.
- Draw on and synthesise appropriate sources of information to communicate ideas about climate drivers and responses in marine and coastal habitats.

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 Learning Skills Unit 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.

**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 **two modules and weekly topics**. A **one day field trip** is also scheduled for this unit outside of normal class time. The organisation of these is outlined in a detailed unit schedule which is available on iLearn.

**Classes**

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.

**Workload**

The expected workload for this 10-credit point unit is 150 hours of activity, comprising lecture attendance and review, practical class attendance and report completion, research towards the completion of the field trip report and presentation, attendance of the field day, and exam preparation.

**Requirements to complete this unit satisfactorily**

To complete this unit satisfactorily, you must:

1. Participate in all scheduled classes;
2. Complete all assessments including the final exam; 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**.
Unit guide EESC2160 Climate and Oceans

Recommended Texts and/or Materials
Readings will be provided each week on iLearn

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

Unit Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Lecturer</th>
<th>Lecture Topic</th>
<th>Practical Topic</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Thursday 29th July</td>
<td>SW</td>
<td>Introduction- coupled ocean atmosphere system in time</td>
<td>No practical</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Thursday 6th August</td>
<td>NS</td>
<td>Palaeo Sea level and coastal morphodynamics</td>
<td>Practical 1 East Australian sea level trend analysis</td>
<td>Assessable Pract due Fri 7th August</td>
</tr>
<tr>
<td>3</td>
<td>Thursday 13th August</td>
<td>NS</td>
<td>Extreme maritime storms</td>
<td>Practical 2 Vertical accretion of intertidal habitats</td>
<td>Assessable Pract due Fri 14th August</td>
</tr>
<tr>
<td>4</td>
<td>Thursday 20th August</td>
<td>NS</td>
<td>Marine climate and weather-ENSO and the IOD</td>
<td>Practical 3 Indigenous perspectives in coastal and marine management</td>
<td></td>
</tr>
</tbody>
</table>

https://unitguides.mq.edu.au/unit_offerings/138196/unit_guide/print
### Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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**
Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).

**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 ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

**Student Support**

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

**Learning Skills**

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- 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 Enquiry Service
For all student enquiries, visit Student Connect at ask.mq.edu.au
If you are a Global MBA student contact globalmba.support@mq.edu.au

Equity Support
Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

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.