EESC2150
Mass extinctions and the hidden history of Earth
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

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Credit points
10

Prerequisites
EESC1150 (or GEOS112 or GEOS1110 or GEOS125 or GEOS1120 or GEOS126 or GEOS1130)

Corequisites

Co-badged status
Unit description
252 million years ago life on our planet was nearly exterminated: 96% of marine life and over 70% of terrestrial life went extinct. The causes for this mass extinction are still debated. In this unit we explore the geological history of this event. You will visit the site of the extinction boundary on a field trip and develop geological skills to understand the paleoenvironment and Earth processes that were changing at this time. You will interrogate continental reconstructions to uncover why there were glaciers near Sydney in the Permian and delve into the mantle to understand volcanoes, large igneous provinces and their devastating hazards. You will discuss how and why the magnetic field was changing at this time and investigate sediments and geochemistry to understand the link between Earth's interior and the surface. Through this analysis, we will try to understand one of the biggest questions in Earth Science: what caused the Permo-Triassic mass extinction? You will develop your skills in field work and geological mapping, rock and mineral identification in hand samples and under the microscope, viewing and probing global datasets and continent reconstructions, analysing geochemical data, and synthesising data to address scientific questions. This is a topical elective for those interested in how geoscience informs current and future environmental crises.

Important Academic Dates
Information about important academic dates including deadlines for withdrawing from units are available at [https://students.mq.edu.au/important-dates](https://students.mq.edu.au/important-dates)

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

- **ULO3**: integrate scientific data from multiple sources to solve real-world problems and effectively communicate scientific information to experts and non-experts.
- **ULO1**: observe, understand and record geological information in the field to map rocks and structures and interpret geological history including mass extinctions.
- **ULO2**: identify and analyse common sedimentary, metamorphic and igneous rocks to deduce how they formed.
- **ULO4**: develop team work, problem solving and project management skills to assess geological settings in Earth's past.

General Assessment Information
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.

Exams

Details of exam conditions and timetables can be found on the Exams and Results portal. The draft exam timetable will be released approximately eight weeks before the commencement of the exams. The final exam timetable will be published 4 weeks before commencement. All students (including exchange students) are expected to present themselves for the exam at the time and place designated in the exam timetable. Note this may include weekends.

For unavoidable disruptions during exams, you should apply for Special Consideration as soon as possible. If a Supplementary Examination is granted as a result of the Special Consideration process, the exam time will be scheduled after the conclusion of the official examination.
**Assessment Tasks**

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Quizzes</td>
<td>15%</td>
<td>No</td>
<td>every week</td>
</tr>
<tr>
<td>Final exam</td>
<td>40%</td>
<td>No</td>
<td>Week 14</td>
</tr>
<tr>
<td>Literature Review</td>
<td>20%</td>
<td>No</td>
<td>30/08/2021</td>
</tr>
<tr>
<td>Field Report</td>
<td>25%</td>
<td>No</td>
<td>27/09/2022</td>
</tr>
</tbody>
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**Weekly Quizzes**

Assessment Type 1: Quiz/Test  
Indicative Time on Task 2: 11 hours  
Due: every week  
Weighting: 15%

Short weekly quizzes that test knowledge of lecture and workshop material and may be online or in class. See iLearn for a detailed list of quizzes in this unit.

On successful completion you will be able to:

- integrate scientific data from multiple sources to solve real-world problems and effectively communicate scientific information to experts and non-experts.
- identify and analyse common sedimentary, metamorphic and igneous rocks to deduce how they formed.

**Final exam**

Assessment Type 1: Examination  
Indicative Time on Task 2: 17 hours  
Due: Week 14  
Weighting: 40%

Final examination that requires the application of skills and knowledge developed in this unit.
On successful completion you will be able to:

- integrate scientific data from multiple sources to solve real-world problems and effectively communicate scientific information to experts and non-experts.
- identify and analyse common sedimentary, metamorphic and igneous rocks to deduce how they formed.

**Literature Review**

Assessment Type: Literature review
Indicative Time on Task: 20 hours
Due: 30/08/2021
Weighting: 20%

A summary, interpretation or an evaluation of research findings in a field of study. See iLearn for details of the literature review.

On successful completion you will be able to:
- integrate scientific data from multiple sources to solve real-world problems and effectively communicate scientific information to experts and non-experts.

**Field Report**

Assessment Type: Case study/analysis
Indicative Time on Task: 20 hours
Due: 27/09/2021
Weighting: 25%

A report comprising multiple components that may include preparation for going in the field, field-based tasks and analysis of data collected in the field. See iLearn for details.

On successful completion you will be able to:
- integrate scientific data from multiple sources to solve real-world problems and effectively communicate scientific information to experts and non-experts.
- observe, understand and record geological information in the field to map rocks and structures and interpret geological history including mass extinctions.
- identify and analyse common sedimentary, metamorphic and igneous rocks to deduce
• develop team work, problem solving and project management skills to assess geological settings in Earth's past.

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 [Learning Skills Unit](https://unitguides.mq.edu.au/unit_offerings/138219/unit_guide/print) 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**

11 Workshops of 3h + Reading Assignment (≈1.5h/week)

Fieldwork: 5-day field trip (including 32 hours face to face teaching)

**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 weekly topics. 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](https://unitguides.mq.edu.au/unit_offerings/138219/unit_guide/print) portal.

**Technology Used and Required**

This unit will use iLearn and Echo360. See the [Instructions on how to log in to iLearn](https://unitguides.mq.edu.au/unit_offerings/138219/unit_guide/print) and the [iLearn quick guides for students](https://unitguides.mq.edu.au/unit_offerings/138219/unit_guide/print) 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

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
- Assessment Policy
- Fitness to Practice Procedure
- Grade Appeal Policy
- Complaint Management Procedure for Students and Members of the Public
- Special Consideration Policy (Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies 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.