



# BIOL3520

## Palaeobiology

Session 2, Infrequent attendance, North Ryde 2020

*Department of Biological Sciences*

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### Disclaimer

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### Notice

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff

Glenn Brock

[glenn.brock@mq.edu.au](mailto:glenn.brock@mq.edu.au)

Credit points

10

Prerequisites

150cp including (BIOL2520 or BIOL263) and (30cp from BIOL or ENVS or GEOS units at 2000 level or above)

Corequisites

Co-badged status

Unit description

The fossil record is our best guide to large-scale evolutionary patterns and processes. This unit will include a mix of palaeobiology readings, written reviews, seminars, supplementary lectures and lab sessions to explore into the most interesting research, techniques, controversies, debates and discoveries in the discipline of palaeobiology. Key macroevolutionary themes will be explored including evolutionary trends, time scales, palaeoecology, phylogenetics, and the evolution of major marine and terrestrial groups. This unit is the Capstone for the Major in Palaeobiology.

## 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:** Utilise fossils combined with analytical skills to solve advanced evolutionary problems

**ULO2:** Apply frontier imaging, lab and field techniques and industry standard software to analyse fossil material at an advanced level

**ULO3:** Apply advanced numerical methods that involve faunal turnover, extinction and conservation palaeobiology

**ULO4:** Assess and plan for future careers through the recognition and development of transferable interdisciplinary skills

**ULO5:** Integrate skills to demonstrate capacity at producing primary scientific manuscripts and research proposals based on readings of the primary

**ULO6:** Gain insight and experience with post degree career options in palaeobiology and related disciplines

## General Assessment Information

Task	Weight	Due Date	Linked Learning Outcomes	Linked Graduate Capabilities*	Brief Description
Module Assessments	13% per module 39% total	During Modules – see Schedule	1-8	1-3, 5	Quizzes and other assessments specific to Modules 1-3
Major Essay	25%	Week 7 Fri 13 Sept	1-7	1-4	2500 Essay written as scientific paper – submit to Turnitin
Research Grant Proposal	20%	Week 10 Fri 18 Oct	1, 2, 5, 7, 8	1-5, 8, 9	Research Grant proposal [1500 words]
Presentation	16%	Week 13 4 Nov Lab session	3-7	1-5, 8, 9	Scientific Poster [A1 max size]; Staff + peer review mark – Text submit to Turnitin

### MODULES 1-3:

All students will complete the unit in the same block mode. Apart from Module 1 (which will be offered as a completely online module), Modules 2 and 3 will be offered as 2 x full day face (6 hour) on campus sessions during the mid-semester recess (see Schedule for details). See the BIOL3520 iLearn page for all the details on what is expected for each module. Each module will have at least 2 x live (or pre-recorded) Lectures that will you required to listen prior to and in preparation for each Module.

**All MODULES** are **COMPULSORY** for the unit. There will be no other opportunity to complete these Modules and if you miss them. Lectures will be a mix of live and pre-recorded. All live lectures will be recorded. Other non-lecture activities associated with the Modules **WILL NOT** be recorded because it is simply not possible to do this for block mode activities, so you need to be present (online or in person) to pass the assessment tasks associated with each Module. Since the Modules and Participation mark (see below) make up more than 50% of the final grade, completion of all Modules is required to meet the learning outcomes. Please see schedule for exact dates required for attendance. **I reiterate, ALL students are expected to attend all**

**activities across the 3 Modules.** Of course, if there is genuine misadventure then students must apply for Disruption of Studies and inform the Convenor as soon as possible.

### **Major Essay marking criteria (Summary – Full rubric available on iLearn)**

Marks for the Major Essay will be allotted for the following:

1. Scientific content, meaning how well you have researched and evaluated the evidence to support your answer written in your own words.**50%**
2. Logical organisation, spelling, grammar, and conciseness. Use sub-headings.**20%**
3. Comprehensiveness, relevance, and formatting of the references you have consulted in researching your topic and *cited in the text* (see Harvard Referencing Style Guide).**20%**
4. Relevance, effectiveness, and referencing of figures, graphs and/or tables. At least one figure, graph, or table *must* be included.**10%.**

Important note: anything not in your own words does not demonstrate researching the topic; evaluating the evidence; writing logically and grammatically; or finding references on your own. Therefore, if you copy extensively *you may receive little or no credit* in any or all of these areas.

**LATE PENALTY: Please note that a 5% deduction to the final grade will be imposed for each full day the Major Assignment is submitted late.**

**ZOOM presentation (10 mins: 6 mins talk + 4 mins questions and discussion)**

**DATE: The Zoom presentations will be held over two 90 min sessions from 10:00 am to 11:30 am on Friday October 30 (Week 12) and Friday November 6 (Week 13)**

Posters are a time-honoured way to communicate scientific research in the academic community, and there are very few international scientific conferences that do not include poster sessions in their program. The aim of this assessment task is for each student to gain experience in producing a research poster that could be submitted to an international congress. In this case the poster will be submitted as single Landscape Powerpoint slide and each student will give an oral presentation (6 mins) about a research topic to the student cohort and three staff. Research posters presented online are becoming more common and provide a critically important way for early career researchers to communicate their scientific research to a wide audience of peers via a short, concise review or evaluation of the author(s) research. They also let you communicate in more detail to a smaller number of particularly interested people (everyone involved in the unit!) who are prepared to spend time absorbing the finer points of your message.

**LATE PENALTY: Please note that a 5% deduction to the final grade will be imposed for each full day the Seminar is submitted late. Students who fail to attend the appointed time of their online seminar will receive a zero grade unless there has been genuine misadventure and fully reported as a disruption of studies.**

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Workshop Quizzes</u>	39%	No	During Modules [ Weeks 3, 5 and Recess]
<u>Seminar</u>	16%	No	Weeks 12-13
<u>Major Essay</u>	25%	No	Week 7, 11/09/2020
<u>Research Grant Application</u>	20%	No	Week 12-13

### Workshop Quizzes

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **During Modules [ Weeks 3, 5 and Recess]**

Weighting: **39%**

T/F and written answer quiz questions based on activities completed in separate modules (mix of Lec/Lab/Tutorial)

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- Apply advanced numerical methods that involve faunal turnover, extinction and conservation palaeobiology
- Assess and plan for future careers through the recognition and development of transferable interdisciplinary skills

### Seminar

Assessment Type <sup>1</sup>: Presentation

Indicative Time on Task <sup>2</sup>: 15 hours

Due: **Weeks 12-13**

Weighting: **16%**

Presentations with questions delivered in person or online outlining a separate palaeontological topic completely separate from the Essay topic - to show breadth of knowledge - can be related to career or post graduate aspirations

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## Major Essay

Assessment Type <sup>1</sup>: Essay

Indicative Time on Task <sup>2</sup>: 30 hours

Due: **Week 7, 11/09/2020**

Weighting: **25%**

Scientific essay selected from a prescribed set of palaeo discipline areas. Student must define research area, formulate research question(s) data mine, read papers, formulate and organise text, write formal scientific paper.

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## Research Grant Application

Assessment Type <sup>1</sup>: Professional writing

Indicative Time on Task <sup>2</sup>: 19 hours

Due: **Week 12-13**

Weighting: **20%**

Student formulates scientific rationale, aims, logistics, methods, outcomes and communication for an innovative research grant proposal that incorporates at least 2 separate discipline areas. The grant application is word limited.

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<sup>1</sup> 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.

<sup>2</sup> 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

All Modules are 8 hours: Made up of 2 x 1 hr Lectures and 6 hours of mixed Online and Lab activities. All Lectures are presented online LIVE via ZOOM

Module 1 is offered completely online. Modules 2-3 are offered as 2 x full day on-campus blocks during the mid-session Recess (17-18 Sept)

Student Seminar presentations will be presented and assessed via Zoom.

All written assessment tasks will be submitted and marked on Turnit-in

## 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) (<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) (<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](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://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/study/getting-started/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](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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](http://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 Services and 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.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

For help with University computer systems and technology, visit [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](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.

## Changes from Previous Offering

This unit is being run on the EXTERNAL and ONLINE SCHEDULE. There are no DAY sessions for this unit in 2020. As such I have not completed the section for Day version since it does not exist.