



# BIOL399

## Special Interest Topics in Biology

S2 Day 2015

*Dept of Biological Sciences*

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#### **Disclaimer**

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## General Information

Unit convenor and teaching staff

Convenor (Biology Stream)

Koa Webster

[koa.webster@mq.edu.au](mailto:koa.webster@mq.edu.au)

Contact via Email

E8A 343 (access via 342)

Fridays 9:30-12:30 or by appointment

Convenor (Palaeobiology Stream)

Glenn Brock

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

E8A 322

Other

Katherine McClellan

[katherine.mcclellan@mq.edu.au](mailto:katherine.mcclellan@mq.edu.au)

Credit points

3

Prerequisites

Permission of Executive Dean of Faculty

Corequisites

Co-badged status

Unit description

Students with a special interest in a particular area of biology and palaeobiology may be permitted to enrol in this unit. It is necessary for them to contact the coordinator and arrange for a staff member to supervise their reading and mark the work. Assessment is based on two literature reviews, or equivalent, plus a seminar. Students in the palaeobiology program can undertake a separate palaeobiology readings strand for this unit that delves into some of the most interesting hot topics, controversies, debates and discoveries in the fields of palaeobiology and palaeoecology.

## 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:

Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.

Cogently evaluate, synthesise and assess the evidence presented in scientific literature.

Communicate your understanding of a topic using written scientific conventions.

Communicate and explore, via oral presentation, the most important data, results and conclusions from the primary scientific literature.

## General Assessment Information

### Unit completion requirements

Students need to pass all assessment tasks and gain a standard numerical grade equivalent to, or greater than, 50 to pass the unit.

### Assessment submission

All written assessments must be submitted via the *Turnitin* link on the BIOL399 iLearn website. Assessments will not be marked until they have been submitted to the *Turnitin* website. Information and instructions for using *Turnitin* can be found at: <http://www.turnitin.com/static/training.html>.

### Extensions and penalties

10% off the mark allocated for essays will be deducted per day for any work that is submitted after the due date.

The deadlines for **essays are not negotiable**. Only a medical certificate or a letter with appropriate supporting documents outlining other serious, extenuating circumstances can be used to submit an essay after the due date without penalty. All applications for special consideration or extension must be sought ***before the due date*** unless this is absolutely impossible. **All applications for extensions of deadlines must be submitted to the appropriate unit convenor.**

## Assessment Tasks

Name	Weighting	Due
<a href="#"><u>Early Assessment Task</u></a>	5%	Week 3
<a href="#"><u>Essay 1</u></a>	40%	Week 8
<a href="#"><u>Essay 2</u></a>	40%	Week 12
<a href="#"><u>Oral presentation</u></a>	15%	Week 13

## Early Assessment Task

Due: **Week 3**

Weighting: **5%**

The main aim of the assessment is to lay the foundation for good practice in data mining primary scientific literature, evaluating data sources and formatting written work. The exact nature of the task will be designed in consultation with your supervisor. It may take the form of a library resource exercise (e.g. production of an annotated bibliography) or a review of a new and pertinent scientific paper or book. The task will be designed as a relevant prelude to the larger essay topics to be completed later in the unit. Feedback and assessment will be completed in a timely manner to ensure the student has time to correct mistakes and to incorporate feedback into the essay topics.

On successful completion you will be able to:

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
- Communicate your understanding of a topic using written scientific conventions.

## Essay 1

Due: **Week 8**

Weighting: **40%**

Students in the **Biology** stream will submit two essays (Essay 1 and Essay 2) on separate aspects of a chosen topic. Students in the **Palaeobiology** stream will submit essays on a mixture of set and chosen topics. Details on what is expected regarding each stream, including submission dates, specific marking criteria and format for each stream will be provided separately.

Students will be assessed on coverage and comprehension of the literature relevant to the chosen topic/s, critical evaluation of the material, and style and writing of the essay. Details of the essay requirements for the two streams will vary – students will be provided with detailed separate instructions for the essays by the convener of your stream.

The essays will be independently assessed by the supervisor and at least one other member of staff with relevant expertise. More staff may be co-opted to act as independent assessors if required.

On successful completion you will be able to:

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.

- Communicate your understanding of a topic using written scientific conventions.

## Essay 2

Due: **Week 12**

Weighting: **40%**

(See description for Essay 1 above).

On successful completion you will be able to:

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
- Communicate your understanding of a topic using written scientific conventions.

## Oral presentation

Due: **Week 13**

Weighting: **15%**

Whether it be at scientific meetings or conferences, in schools, or in boardrooms, oral presentations are a time-honoured way of disseminating information and reporting results to a large (or select) audience at one time. **Each student will be expected to present a seminar of 20 minutes duration (15 mins talk + 5 mins for questions/discussion).** Students undertaking the **Palaeobiology** stream will choose to present their oral presentation on one of a selection of possible topics available separately. This will be your chance to argue your point of view and discuss the evidence in front of an audience.

Since you only have 15 minutes for your seminar, it is important that your talk is well structured. Remember to keep the structure of your talk simple, but logical. Do not try to cram everything you know (or have learned) about the topic in 15 minutes. For a 15 minute presentation you should be looking at no more than 8-10 PowerPoint slides (+ 1 slide showing references).

You will need to carefully evaluate and **present only essential, important and relevant material (especially illustrations) in an organised and logical sequence.** The best seminars are those that are relatively simple, logically organised, clearly illustrated, informative and entertaining!!! Remember that the seminar is worth 15% of your final mark and so we expect high quality work (especially in terms of scientific evaluation, presentation of factually correct info and relevance). Seminars will be presented to an audience consisting of at least 2 staff members. Relevant postdocs, postgrads and MRes students will also be invited to attend. Other students completing BIOL399 will also be present. Seminars are normally held in the last week of semester.

**All students will need to present their seminar using PowerPoint.**

*Marks will be allocated for:*

(a) scientific content, factually correct, relevance – how well data has been evaluated,

synthesised and presented (50%)

(b) organisation and logical flow of the presentation (20%)

(c) clarity of presentation (oral and visual) (20%)

(d) adequate acknowledgement of relevant sources and ability to answer audience questions (10%)

On successful completion you will be able to:

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
- Communicate and explore, via oral presentation, the most important data, results and conclusions from the primary scientific literature.

## Delivery and Resources

The aim of this unit is to search, read and critically review the available scientific literature on biological or palaeobiological topic(s). The topic(s) is (are) to be decided by the student in consultation with a supervisor from the Department of Biological Sciences. There are **no regular scheduled classes**; instead all students undertake independent research, with regular contact with their topic supervisor.

This is a 3 credit point unit, therefore all students are expected to spend approximately 9 hours per week on their studies for this unit. Students will need to take responsibility for organising their workload throughout the semester.

All students will be required to attend a seminar presentation session in the final week of semester, to both present their own seminar and be an audience for other BIOL399 students. Check the Unit iLearn page for date and time.

### iLearn

BIOL399 has an online presence on iLearn. To access this site go to <https://ilearn.mq.edu.au/login/MQ/>. You will need your OneID and password to log in. This site reproduces the BIOL399 Unit Outline and other information including detailed assignment instructions, submission dates, *Turnitin* links for assessment submission.

**All students are expected to check the Unit iLearn site regularly for announcements and information.**

## Learning and Teaching Activities

### Personal reading

Reading through journal articles and online resources pertinent to your topic area.

## Meetings and discussions with supervisor

At these meetings you will be expected to select your topic area(s), discuss relevant literature, etc.

## Written assessments

These assessments will develop your data mining skills, critical and analytical thinking, and writing skills.

## Seminar session

This is your opportunity to argue your point of view with supporting evidence in front of an audience. It will also give you an opportunity to be a respectful audience member and participate in discussion of diverse topics in biology/palaeobiology.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy [http://mq.edu.au/policy/docs/academic\\_honesty/policy.html](http://mq.edu.au/policy/docs/academic_honesty/policy.html)

Assessment Policy <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Grievance Management Policy [http://mq.edu.au/policy/docs/grievance\\_management/policy.html](http://mq.edu.au/policy/docs/grievance_management/policy.html)

Disruption to Studies Policy [http://www.mq.edu.au/policy/docs/disruption\\_studies/policy.html](http://www.mq.edu.au/policy/docs/disruption_studies/policy.html) *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of 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/support/student\\_conduct/](https://students.mq.edu.au/support/student_conduct/)

## Results

Results shown in *iLearn*, 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).

## Student Support

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

[dents.mq.edu.au/support/](https://dents.mq.edu.au/support/)

## Learning Skills

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

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

## 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](https://ask.mq.edu.au)

## IT Help

For help with University computer systems and technology, visit <http://informatics.mq.edu.au/help/>.

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

## Graduate Capabilities

### Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

### Learning outcomes

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
- Communicate your understanding of a topic using written scientific conventions.



- Communicate and explore, via oral presentation, the most important data, results and conclusions from the primary scientific literature.

## **Assessment tasks**

- Early Assessment Task
- Essay 1
- Essay 2
- Oral presentation

## **Critical, Analytical and Integrative Thinking**

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

### **Learning outcomes**

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.

## **Assessment tasks**

- Early Assessment Task
- Essay 1
- Essay 2
- Oral presentation

## **Problem Solving and Research Capability**

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

### **Learning outcomes**

- Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.

## Assessment tasks

- Early Assessment Task
- Essay 1
- Essay 2
- Oral presentation

## Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

## Learning outcomes

- Communicate your understanding of a topic using written scientific conventions.
- Communicate and explore, via oral presentation, the most important data, results and conclusions from the primary scientific literature.

## Assessment tasks

- Early Assessment Task
- Essay 1
- Essay 2
- Oral presentation

## Changes from Previous Offering

In previous years, students were given an option to complete a mock grant proposal instead of a second essay. This option is no longer available.