



BIOL399

Special Interest Topics in Biology

S2 Day 2014

Dept of Biological Sciences

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General Information

Unit convenor and teaching staff

Other Staff

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Unit Convenor

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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.

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

General Assessment Information

1. Early semester task

All students will be presented with an early assessment task in the unit, the main aim of which 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.

2. Essays

Two essays (maximum 2,500 words each) on separate aspects of a chosen topic (Biology stream), or mixture of set and chosen topics (Palaeobiology stream), are completed. 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.

As an **alternative to the second essay**, students (in consultation with their supervisor) may write a mock grant application (such as an ARC Discovery Grant proposal). If so, the student

would be expected to download the appropriate guidelines and application forms from the research office web site (www.ro.mq.edu.au) and to follow the instructions as closely as possible. **Contact your supervisor if you would like to attempt this option.** This option would be suitable for a student planning to undertake further academic studies.

The due dates will be agreed in discussions between the student and supervisor.
Normally one essay is handed in by the end of week 8, and essay 2 at the end of Week 12.

3. Oral Presentation (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. It would be best if the presentation was completed on an IBM PC or laptop in 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 Q's (10%)

4. Essay submission and Turnitin

Both Essays must initially be submitted via *Turnitin* which can be accessed via the BIOL399 iLearn website. Essay will not be marked until they have been submitted to the *Turnitin* website.

More detailed information and instructions for using *Turnitin*, including quickstart and step-by-step user manuals, 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.**

Feedback and unit evaluation

As this is a small unit, there should be a considerable amount of contact between the student and their supervisor. This contact can be face to face or via electronic communication. Informal feedback will be provided on semi regular basis. In addition you will receive written feedback on your essays. The unit is too small to allow anonymous unit evaluation surveys to be used. However, we hope students will raise any issues with their supervisor and/or the convener of the stream they are undertaking.

Assessment Tasks

Name	Weighting	Due
<u>Early Semester Task</u>	5%	Week 3
<u>Essay 1</u>	40%	Week 8
<u>Essay 2</u>	40%	Week 12
<u>Oral Seminar</u>	15%	Week 13

Early Semester Task

Due: **Week 3**

Weighting: **5%**

To be decided with Supervisor

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%**

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%**

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 Seminar

Due: **Week 13**

Weighting: **15%**

15 min seminar on essay topics + 5 mins for Q and discussion

On successful completion you will be able to:

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

Delivery and Resources

Convenor (Biology Stream):

Dr Linda Beaumont

Room 246, Building E8C

Dept. of Biological Sciences

Phone: 9850 8157

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Convenor (Palaeobiology Stream):

A/Prof Glenn A. Brock

Room 322, Building E8A

Dept. of Biological Sciences

Phone: 9850 8335

E-mail: glenn.brock@mq.edu.au

Pre-requisites

Admission to this unit is by permission of the conveners. Students undertaking the Biology stream are expected to have a GPA of 2.5 or higher, and at least 40 credit points. Students undertaking the Palaeobiology stream must be undertaking the Palaeobiology Major as part of higher degree and must have a minimum pre-requisite of a P grade in BIOL381 or BIOL382.

Unit description

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 (see above). Students undertaking the Palaeobiology stream will be provided with two research topics for the essays, though students may choose to complete a topic of their choice; students who want to complete a separate topic **MUST** gain approval from the Palaeobiology Convenor. There are normally no scheduled classes; instead all students undertake independent research, with regular contact with their topic supervisor. Students will need to take responsibility for organizing their workload throughout the semester.

Note that students who enrol in this subject can only do the Biology **OR** the Palaeobiology stream, not both. Please consult the relevant Convenor (listed above) for details.

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

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

Disruption to Studies Policy 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/

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 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

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

Assessment tasks

- Early Semester Task
- Essay 1
- Essay 2
- Oral Seminar

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 Semester Task
- Essay 1
- Essay 2
- Oral Seminar

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 outcome

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

Assessment tasks

- Early Semester Task
- Essay 1
- Essay 2
- Oral Seminar

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
- Communicate your understanding of a topic using written scientific conventions.

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 outcome

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

Assessment tasks

- Early Semester Task
- Essay 1
- Essay 2
- Oral Seminar

Changes since First Published

Date	Description
06/08/2014	slight amendments