



MACQUARIE
UNIVERSITY

Department of Biological Sciences
Faculty of Science
Macquarie University

BIOL399
Special Interest Topics in Biology

3 cp

D1, X1, D2, X2

Semester 2, 2011

Convenor (Biology Stream):

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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, and at least 45 credit points. Students undertaking the Palaeobiology stream must be enrolled in the Palaeobiology Major 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 either in person or via e-mail. 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.

Learning outcomes

By the end of this unit you should be able to:

1. Utilise data mining techniques and skills to comprehensively and rigorously research a topic (or topics) from the primary scientific literature.
2. Cogently evaluate, synthesise and assess the evidence presented in scientific literature.
3. 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.

Blackboard.

BIOL399 has an online presence on Blackboard. To access this site go to <https://learn.mq.edu.au/>. You will need your MQ ID and password to log in. This site reproduces the BIOL399 Unit Outline and other information including assignment dates. Students undertaking the Palaeobiology stream have a separate set of instructions for the essays.

Graduate capabilities

An important aim of this unit is to enhance and develop the following capabilities in students:

1. *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.

2. *Critical, Analytical and Integrative Thinking*

We want our graduates to be capable of reasoning, questioning and analyzing, 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. We want them to have a level of scientific and information technology literacy.

3. *Problem Solving and Research Capability*

Our graduates should be capable of researching; of analyzing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge

4. *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.

Unit completion requirements

The Academic Senate has recently determined that Concessional Passes (PC Grades) will no longer be available to students as of Semester 1, 2011. This means that students need to gain a standard numerical grade equivalent to, or greater than, 50 to pass the unit.

ASSESSMENT IN THIS UNIT

Assessment at a glance; due dates to be decided in consultation with your supervisor

Task	Weight	Due Date	Linked Learning Outcomes	Linked Graduate Capabilities *	Brief Description
Early Semester Task	5%	Week 3	1,2,3	1,2,3,4	To be decided with Supervisor; may take the form of an annotated bibliography, a do-it-yourself workshop or relevant book review

Essay 1	40%	Week 8	1,2,3	1,2,3,4	Essay on Topic 1
Essay 2	40%	Week 12	1,2,3	1,2,3,4	Essay on Topic 2
Oral Seminar	15%	Week 13	4	1,2,3,4	15 min seminar + 5 mins for Q and discussion

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 (minimum 3,500 words each) on separate aspects of a chosen topic (Biology stream), or separate 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 Honours 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. You may use PowerPoint 2007 to construct your talk, but it would be best to save your final presentation as a 1997-2003 PowerPoint file to avoid compatibility problems.

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 the *Turnitin* website (see instructions below). Essay will not be marked until they have been submitted to the *Turnitin* website.

Turnitin. In order to tackle the issue of student plagiarism, Macquarie University uses an online anti-plagiarism detection tool called *Turnitin*. This program works by comparing each student's work with the work of other students and material found online. More information about anti-plagiarism software is available at:

<http://www.lib.mq.edu.au/infoethics/plag.html>. As part of the submission requirements for both essays, all BIOL399 students must submit their work to *Turnitin* prior to submitting their assignments in the usual way. Students who do not submit their assignments to *Turnitin* will not have their work marked until they do so.

The procedure for submitting an assignment to *Turnitin* is relatively straight forward:

1. Go to www.turnitin.com:
 - a). If you have previously set up a profile for another unit then log in using your e-mail address and password. Next, enrol in BIOL399 using the password below.
 - b). To create a new profile click on 'New User' at the top right of the screen and then follow the instructions for creating a new student profile. You will need to use the class ID and password below. This will automatically enroll you in BIOL399.

class/section ID: XXXXX

enrolment password: biol399

2. Once you're logged in, BIOL399 should appear on your *Turnitin* homepage. Click on the unit name to access the class portfolio page.
3. To submit an essay, click the 'submit' button to open the paper submission page and then follow the instructions on screen. Note that to upload your essay to *Turnitin* it must be in either MS Word, WordPerfect, RTF, PDF, PostScript, HTML, or plain text (.txt) format. **NOTE: Please do not upload an assignment coversheet to Turnitin!**
4. Click the 'yes, submit' button to upload your essay. Once your assignment is uploaded, a digital receipt will be e-mailed to you. You must retain a copy of this receipt.
5. Once you have submitted the essay to *Turnitin* you can then forward a digital or hard copy version directly to your supervisor. Please include a signed cover sheet for all essays.

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 that any work is submitted late.

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 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.

5. POLICIES

Macquarie is developing a number of policies in the area of learning and teaching. Approved policies and associated guidelines and procedures can be found at Policy Central: <http://www.mq.edu.au/policy/index.html>

There you will find the University's policy, associated procedures and penalties (where they apply) on:

Assessment

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

<http://www.mq.edu.au/policy/docs/assessment/procedure.html>

Academic Honesty

http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

Please become familiar with these policies since they currently apply to all units taught at the university.

Plagiarism involves using the work of another person and presenting it as one's own. Any of the following acts constitutes plagiarism unless the source of each quotation or piece of borrowed material is clearly acknowledged:

- copying out part(s) of any document or audio-visual material (including computer-based material);
- using or extracting another person's concepts, experimental results, or conclusions;
- summarising another person's work;
- in an assignment where there was collaborative preparatory work, submitting substantially the same final version of any material as another student.

Encouraging or assisting another person to commit plagiarism is a form of improper collusion and may attract the same penalties which apply to plagiarism.

Senate also approved a statement entitled *The Dangers of Plagiarism and How to Avoid It* which is as follows:

The integrity of learning and scholarship depends on a code of conduct governing good practice and acceptable academic behaviour. One of the most important elements of good practice involves acknowledging carefully the people whose ideas we have used, borrowed, or developed. All students and scholars are bound by these rules because all scholarly work depends in one way or another on the work of others.

Therefore, there is nothing wrong in a student using the work of others as a basis for their own work, nor is it evidence of inadequacy on the student's part, **provided they do not attempt to pass off someone else's work as their own.**

To maintain good academic practice, so that a student may be given credit for their own efforts, and so that their own contribution can be properly appreciated and evaluated, they should acknowledge their sources and they should **ALWAYS:**

- state clearly in the appropriate form where they found the material on which they have based their work, using the system of reference specified by the Division in which their assignment was set;
- acknowledge the people whose concepts, experiments, or results they have extracted, developed, or summarised, even if they put these ideas into their own words;
- avoid excessive copying of passages by another author, even where the source is acknowledged. Find another form of words to show that the student has thought about the material and understood it, but stating clearly where they found the ideas.

If a student uses the work of another person without clearly stating or acknowledging their source, the result is falsely claiming that material as their own work and committing an act of PLAGIARISM. This is a very serious violation of good practice and an offence for which a student will be penalised.

A STUDENT WILL BE GUILTY OF PLAGIARISM if they do any of the following in an assignment, or in any piece of work which is to be assessed, **without clearly acknowledging their source(s) for each quotation or piece of borrowed material:**

- copy out part(s) of any document or audio-visual material, including computer-based material;
- use or extract someone else's concepts or experimental results or conclusions, even if they put them in their words;
- copy out or take ideas from the work of another student, even if they put the borrowed material in their own words;
- submit substantially the same final version of any material as a fellow student. On occasions, a student may be encouraged to prepare their work with someone else, but the final form of the assignment must be their own

independent endeavor.

6. QUERIES and APPEALS

In the first instance, contact your supervisor if there are any questions about the assessment tasks themselves, or about the feedback and grades that you received for your various assessment tasks. You are permitted to appeal against your final grade in any of your units. Before initiating an appeal, discuss your unit grade fully with the Unit Convener. More details regarding appeal procedures are available from Policy Central [http://www.mq.edu.au/policy/docs/grade_appeal/policy.html] or the Science Centre E7A Level 1, E7A (e-mail: enquiries@science.mq.edu.au; ph: 9850 6000).

7. SPECIAL CONSIDERATION REQUESTS

During Semester. All requests for special consideration should be submitted through the Student Enquiry Service, Registrar and Vice-Principal's Office. You must also provide your Supervisor with a copy of the documentation lodged at the Student Enquiry Service when submitting assignments. We strongly recommend that you see your unit Convenor on all such occasions to discuss the matter with her/him. The university policy and procedures on Special Consideration Requests can be found on Policy Central at:

http://www.mq.edu.au/policy/docs/special_consideration/policy.html

http://www.mq.edu.au/policy/docs/special_consideration/procedure.html

Please note that the submission of requests for special consideration is monitored by the Department. Repeated requests will result in referral of the student to the Dean of Students for discussion and advice.

Important information, including Undergraduate Student Forms and deadlines for submission, is available at: <http://www.student.mq.edu.au/>.