MAR 303

Marine Science Project

S2 Day 2014

Dept of Biological Sciences

Contents

General Information

Unit convenor and teaching staff
Other Staff
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Unit Convenor
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Credit points
3

Prerequisites
39cp including (MAR201(P) or ELS201(P)) and admission to BMarSc

Corequisites

Co-badged status

Unit description
In this unit, students undertake an independent research project under the supervision of one of Macquarie University's marine research staff. The scope of past projects has been broad, with students undertaking a range of data collection methods (such as laboratory experiments, fieldwork, and data synthesis) and producing a range of different research products (such as scientific reports, field guides, and review articles). Although there are no formal classes, students are expected to commit at least 135 hours to their project during the semester, culminating with the submission of a scientific report.

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:

Participated in a scientific collaboration

Evaluated primary scientific literature

Formulated an original research question

Developed an experimental design or equivalent

Analysed and interpreted data

Managed research within a given timeframe

Written in a style suitable for publishing scientific research

Presented their work as a research seminar

Assessment Tasks

Name	Weighting	Due
Proposal	10%	TBA
Report	70%	TBA
Seminar	20%	first day of the exam period

Proposal

Due: **TBA**
Weighting: **10%**

The research proposal must be submitted. Having submitted an initial proposal, it is expected that you will discuss the proposed activity with all the relevant people in order to complete the details of the contract proposal and produce the final report.

On successful completion you will be able to:

- Evaluated primary scientific literature
- Formulated an original research question
- Developed an experimental design or equivalent
- Managed research within a given timeframe

Report

Due: **TBA**
Weighting: **70%**

The final report must be submitted. Requirements for proposals are:

- A report in scientific format with the following sections: Title, Abstract, Introduction, Methods, Results, Discussion, References, and Appendices
- No more than 5000 words (not including Appendices)
- 12 point Times New Roman, 1.5 line spacing, and figures embedded between paragraphs following their first mention

On successful completion you will be able to:

- Participated in a scientific collaboration
- Evaluated primary scientific literature
- Developed an experimental design or equivalent
- Analysed and interpreted data
- Managed research within a given timeframe
- Written in a style suitable for publishing scientific research

Seminar

Due: **first day of the exam period**
Weighting: **20%**

Students will present a brief research seminar about their projects. Seminars will be conducted on the first day of the exam period. Requirements for seminars are:

- To succinctly introduce the topic, state the question and objectives, outline the methods and results, and discuss the findings using a PowerPoint presentation
- 15 minutes total time (10 minutes for the presentation and 5 minutes for audience questions). Marks will be deducted for each minute a presenter runs over the allocated 10 minutes.

On successful completion you will be able to:

- Evaluated primary scientific literature
- Developed an experimental design or equivalent
- Analysed and interpreted data
- Presented their work as a research seminar

Delivery and Resources

CLASSES

Other than the start of semester meeting and final research seminars, there are no formal classes for this unit.

REQUIRED AND RECOMMENDED TEXTS AND/OR MATERIALS

Recommended on a case-by-case basis if necessary

UNIT WEBPAGE AND TECHNOLOGY USED AND REQUIRED

Marine Science Resources: http://www.marinescience.mq.edu.au

Unit Web Page: iLearn: http://www.ilearn.mq.edu.au/

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

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Participated in a scientific collaboration
- Managed research within a given timeframe

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

- Participated in a scientific collaboration
- Evaluated primary scientific literature

- Formulated an original research question
- Developed an experimental design or equivalent
- Analysed and interpreted data
- Written in a style suitable for publishing scientific research

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

- Participated in a scientific collaboration
- Evaluated primary scientific literature
- Formulated an original research question
- Developed an experimental design or equivalent
- Analysed and interpreted data
- Written in a style suitable for publishing scientific research

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

- Evaluated primary scientific literature
- Formulated an original research question
- Developed an experimental design or equivalent
- Analysed and interpreted data
- Managed research within a given timeframe
- Written in a style suitable for publishing scientific research

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 outcome

- Formulated an original research question

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

- Participated in a scientific collaboration
- Written in a style suitable for publishing scientific research
- Presented their work as a research seminar