



BIOL860

Biology Research Experience

S2 Day 2015

Dept of Biological Sciences

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General Information

Unit convenor and teaching staff

Robert Harcourt

robert.harcourt@mq.edu.au

E8A 272

Credit points

4

Prerequisites

(Admission to MSc in Biodiversity Conservation or PGDipSc in Biodiversity Conservation or MMarScMgt or MConsBiol or GradDipConsBiol) and 8cp at 800 or 900 level

Corequisites

Co-badged status

Unit description

This unit enables the student to acquire biological research experience by undertaking an internship in a research laboratory or performing a small independent research project under academic supervision. If undertaking a research project the topic may be flexible, but in most cases it will be aligned with the objectives of an academic staff member involved in research.

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:

Develop practical skills in laboratory and/or field methods

Synthesise primary scientific literature

Interpret and communicate the scientific process of the research objectives of your placement

Record daily experimental activities and maintain a laboratory book to research level standards

Interact with research group members and develop peer networking skills

Assessment Tasks

| Name | Weighting | Due |
|---|-----------|--------------|
| Project / internship proposal | 10% | 21 August |
| Scientific report – Part 1 | 15% | 11 September |
| Scientific report – Part 2 | 50% | 6 November |
| Supervisors Report | 25% | 11 November |

Project / internship proposal

Due: **21 August**

Weighting: **10%**

You will write a short proposal explaining the work that you will undertake

On successful completion you will be able to:

- Develop practical skills in laboratory and/or field methods
- Synthesise primary scientific literature
- Interpret and communicate the scientific process of the research objectives of your placement

Scientific report – Part 1

Due: **11 September**

Weighting: **15%**

You will write a report (scientific paper for project placement) describing what is currently known in the area of your project and how your work will contribute to further understanding in this area (this forms part of the major report)

On successful completion you will be able to:

- Develop practical skills in laboratory and/or field methods
- Synthesise primary scientific literature
- Interpret and communicate the scientific process of the research objectives of your placement
- Record daily experimental activities and maintain a laboratory book to research level standards

Scientific report – Part 2

Due: **6 November**

Weighting: **50%**

You will prepare and write a scientific report on the research project that you have undertaken.

On successful completion you will be able to:

- Interpret and communicate the scientific process of the research objectives of your placement
- Interact with research group members and develop peer networking skills

Supervisors Report

Due: **11 November**

Weighting: **25%**

Supervisor will provide a report on student performance, progress, abilities acquired and attendance throughout placement.

On successful completion you will be able to:

- Synthesise primary scientific literature
- Interpret and communicate the scientific process of the research objectives of your placement

Delivery and Resources

Unit description This unit enables the student to acquire biological research experience by or performing a small independent or group research project under academic supervision. The topic may be flexible, but in most cases, it will be aligned with the objectives of an academic staff member involved in research. A new on campus ecological monitoring site will be available for projects. Enrolling students must contact the unit convenor at or before the beginning of the semester to help identify a research topic and academic supervisor.

Unit Objective The objective of this unit is to provide experience in biological research relative to the fields of biodiversity, conservation, marine management, marine science and wildlife biology.

Teaching and learning strategy Projects will be developed under the supervision of a nominated academic. The assessments in this unit are designed to provide you with skills that are applicable across broad based disciplines, and enable you to gain knowledge on relative to your project area. The research component will provide skills specific to the area of your project.

Learning outcomes By the end of this unit you should have acquired a working knowledge of

research in the biological sciences. This training will help you identify your area of research interest, begin to develop laboratory skills and improve your abilities in several areas of scientific communication.

Workload Expectations BIOL860 is a four credit point unit and requires a workload commitment of 150 hours. We expect that this time will be divided into 1) 118 hours of laboratory experience and 2) 30 hours for assessments. You will therefore be in the lab/field for 8-10 hours a week over the semester.

Extensions and penalties The deadlines for assignments are not negotiable. A medical certificate or documents outlining other serious, extenuating circumstances can be used to submit an assignment after the due date without penalty (10% marks loss per day). Applications for special consideration must be sought through the science faculty, via filing a Disruptions to Studies Notification through ask.mq.edu.au.

Unit Schedule

Website iLearn and email will be the principle method of communication in this subject. *How do you log in?* The URL for the iLearn is: <https://ilearn.mq.edu.au/>. Your user name is your student number and the password your oneID. For further details go to http://mq.edu.au/iLearn/student_info/index.htm. If you are having trouble accessing your online unit due to a disability or health condition, please go to the Student Services Website at <http://sss.mq.edu.au/equity/about> for information on how to get assistance. If you cannot log in after ensuring you have entered your username and password correctly, you should contact Student IT Help, Phone: (02) 9850 4357 (in Sydney) or 1 800 063 191 (outside Sydney).

Policies Macquarie has policies and procedures 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/>. There you will find the University's policy and associated procedures on:

- Assessment
- Academic Honesty (plagiarism)
- Special consideration

The penalties imposed by the University for plagiarism are serious. ANY evidence of plagiarism WILL be dealt with following University policy with All plagiarism offences will be reported to Faculty disciplinary committee.

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/

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>.

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

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Assessment task

- Supervisors Report

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Develop practical skills in laboratory and/or field methods
- Interpret and communicate the scientific process of the research objectives of your placement
- Record daily experimental activities and maintain a laboratory book to research level standards

Assessment tasks

- Project / internship proposal
- Scientific report – Part 1
- Scientific report – Part 2
- Supervisors Report

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Synthesise primary scientific literature
- Interpret and communicate the scientific process of the research objectives of your placement
- Record daily experimental activities and maintain a laboratory book to research level standards

Assessment tasks

- Project / internship proposal
- Scientific report – Part 1

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Develop practical skills in laboratory and/or field methods
- Interpret and communicate the scientific process of the research objectives of your placement
- Record daily experimental activities and maintain a laboratory book to research level standards
- Interact with research group members and develop peer networking skills

Assessment tasks

- Project / internship proposal
- Scientific report – Part 1
- Supervisors Report

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Develop practical skills in laboratory and/or field methods
- Synthesise primary scientific literature
- Interpret and communicate the scientific process of the research objectives of your placement
- Interact with research group members and develop peer networking skills

Assessment tasks

- Scientific report – Part 1
- Scientific report – Part 2