



NSCI7926

Advanced Research Experience

Session 1, In person-scheduled-infrequent, North Ryde 2023

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Alison Rodger

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Credit points

10

Prerequisites

Admission to MRes and 20cp at 7000 level

Corequisites

Co-badged status

Unit description

This foundation unit provides opportunities for hands-on research experience in the natural sciences. Students will participate in research group activities and develop advanced scientific skills in areas relating to their research interests in consultation with research mentors. Students will demonstrate mastery of new skills through production of a research report and associated activities.

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:

ULO1: Apply knowledge of your Work Health and Safety obligations to create a risk assessment and management plan for your research.

ULO2: Identify, critically evaluate and apply potential methods to undertake your research.

ULO3: Professionally communicate and defend your selected methodologies.

ULO4: Maintain appropriate records of your research activities and utilise these records to produce a report and reflect on initial project design.

ULO5: Demonstrate competence in the skills and techniques required to undertake your research.

ULO6: Work professionally with a research mentor, and other research collaborators as

required, to plan and undertake research.

General Assessment Information

Requirements to Pass this Unit: This unit is assessed as outlined below. You must gain 50% to pass the unit.

Late Assessment Submission: There are no late assessment penalties, but failure to submit in a timely fashion means feedback will not help the next stage of your learning. If your submission is too close to the exam meeting it may not be considered until the next offering.

Assessment items:

You will create a WHS portfolio including the WHS training plan from Lab Essentials, completion of the required WHS modules, and a project specific evaluation of WHS needs. You will need to work with your mentor and the relevant professional and/or technical staff to ensure that a comprehensive risk assessment and risk management plan is produced. (5%)

The unit can be completed as one or two Research Experiences. For each Experience you will have a minimum of 3 assessment tasks including: a research plan / reflection, a record of research activity, and a research methods report. The records must include a written component but will ideally include a presentation to the research group. Your supervisor will also provide an assessment of your performance during the project which may be used to moderate the marks for the written work. If you undertake both Experiences in the same research group, you will be required to provide your assessed work to a significantly greater depth than if you undertake two independent research experiences. No single item may be worth more than 50% of the unit mark. Assessment tasks and weightings will be agreed upon by the student, group leader, research mentor (if different from the group leader) and the unit convenor at the start of each Research Experience. (90%)

Through the session, you will keep a time on task diary. At the end of the session, you will reflect on the time required to perform various tasks, your time management, and identify ways to improve your time management, research planning, and to be more efficient in your work. (5%)

IT IS UP TO YOU TO ENSURE YOUR SUPERVISORS HAVE THE [ASSESSMENT FORM](#) AND SUBMIT IT TO THE UNIT CONVENOR

Assessment Tasks

Name	Weighting	Hurdle	Due
Time on task diary	5%	No	Week 14
Research project(s)	90%	No	Weeks 7 and 14
WHS portfolio	5%	Yes	Week 2

Time on task diary

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 7 hours

Due: **Week 14**

Weighting: **5%**

Through the session, you will keep a time on task diary. At the end of the session, you will reflect on the time required to perform various tasks, your time management, and identify ways to improve your time management, research planning, and to be more efficient in your work.

On successful completion you will be able to:

- Apply knowledge of your Work Health and Safety obligations to create a risk assessment and management plan for your research.
- Identify, critically evaluate and apply potential methods to undertake your research.
- Maintain appropriate records of your research activities and utilise these records to produce a report and reflect on initial project design.
- Work professionally with a research mentor, and other research collaborators as required, to plan and undertake research.

Research project(s)

Assessment Type ¹: Project

Indicative Time on Task ²: 50 hours

Due: **Weeks 7 and 14**

Weighting: **90%**

The unit can be completed as one or two research placements. For each placement you will have a minimum of 3 assessment tasks including: a research plan / reflection, a record of research activity, and a research methods report. No single item may be worth more than 50% of the unit mark. Assessment tasks and weightings will be agreed upon by the student, research mentor and the unit convenor at the start of the session.

On successful completion you will be able to:

- Identify, critically evaluate and apply potential methods to undertake your research.
- Professionally communicate and defend your selected methodologies.
- Maintain appropriate records of your research activities and utilise these records to

produce a report and reflect on initial project design.

- Demonstrate competence in the skills and techniques required to undertake your research.
- Work professionally with a research mentor, and other research collaborators as required, to plan and undertake research.

WHS portfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 7 hours

Due: **Week 2**

Weighting: **5%**

This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)

You will create a WHS portfolio including the WHS training plan from Lab Essentials, completion of the required WHS modules, and a project specific evaluation of WHS needs. You will need to work with your mentor and the relevant professional and/or technical staff to ensure that a comprehensive risk assessment and risk management plan is produced.

On successful completion you will be able to:

- Apply knowledge of your Work Health and Safety obligations to create a risk assessment and management plan for your research.
- Identify, critically evaluate and apply potential methods to undertake your research.
- Work professionally with a research mentor, and other research collaborators as required, to plan and undertake research.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- the [Writing Centre](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

Delivery and Resources

We have four timetabled sessions for this Unit. Invariably these sessions clash with another unit, so times will be arranged when you all have the rest of your timetables sorted out. The rest of the

unit is spent in research groups at times that you organise with your supervisors.

In **Week 1** we will outline the Unit and discuss how to meet with potential research group leaders.

In **Week 2**, you will be given instruction in safety matters and School familiarisation. Visitors will introduce School administration and technical support. You will also report on your progress in finding placements.

We will also have two informal feedback sessions towards the conclusion of each Research Experience.

Communication is via email to the unit convenor.

COVID precautions to be taken will depend on the individual research group practices. Mask wearing may be appropriate in class.

In **Week 7** (TBC), we will meet to review your first research experiences and look forward to your next project.

In **Week 13** (TBC), we will meet to review the second experience and to outline the organisation of your Y2 program as you continue in MRes.

Policies and Procedures

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

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies \(https://students.mq.edu.au/support/study/policies\)](https://students.mq.edu.au/support/study/policies). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central \(https://policies.mq.edu.au\)](https://policies.mq.edu.au) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of

Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) 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 or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

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

The Writing Centre

[The Writing Centre](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Workshops](#)
- [Chat with a WriteWISE peer writing leader](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual

assault

- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via [AskMQ](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

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