

# **NSCI7925**

# **Advanced Field & Lab Project**

Session 2, In person-scheduled-infrequent, North Ryde 2022

School of Natural Sciences

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#### Disclaimer

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#### **General Information**

Unit convenor and teaching staff

Tracy Rushmer

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Credit points

10

Prerequisites

Admission to MRes

Corequisites

Co-badged status

Unit description

This foundation unit provides opportunities for hands-on experience in learning cutting-edge field and/or laboratory techniques in the natural sciences. Students will develop advanced scientific skills particularly in areas relating to their specific research interests in consultation with a research group or research mentor. Students will demonstrate mastery of new skills through production of a field or laboratory report and associated activities.

# Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <a href="https://www.mq.edu.au/study/calendar-of-dates">https://www.mq.edu.au/study/calendar-of-dates</a>

# **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 project

**ULO2:** Professionally communicate and defend your selected methodology

**ULO3:** Identify, critically evaluate and apply potential methods to undertake your research

**ULO4:** Appropriately record research findings 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 supervisor, and other research collaborators

as required to plan and undertake a research project.

### **General Assessment Information**

#### Engagement - please read, as this is very important

As a BPhil / MRes Yr 1 student you are part of the Faculty of Science and Engineering research community. You are expected to actively participate in our diverse research community. You are expected to contribute to a supportive and respectful dialogue. Disrespectful, offensive, belittling or exclusionary behaviour will not be tolerated (<a href="https://policies.mq.edu.au/document/view.php?id=55">https://policies.mq.edu.au/document/view.php?id=55</a>).

#### **Academic Honesty**

Academic integrity is fundamental to research. Presenting another person's work as your own is a serious breach of the University's rules and carries significant penalties. The University's Academic Honesty Policy can be found at <a href="http://www.mq.edu.au/policy/docs/academic\_honesty/policy.html">http://www.mq.edu.au/policy/docs/academic\_honesty/policy.html</a>

In this unit, all written work will be checked for plagiarism using Turnitin. Penalties for plagiarism may include a zero mark for the assignment or in more extreme cases, failure of the unit. Plagiarism will be noted on your academic record. Full details of penalties can be found at <a href="https://www.mq.edu.au/policy/docs/academic\_honesty/schedule\_penalties.html">https://www.mq.edu.au/policy/docs/academic\_honesty/schedule\_penalties.html</a>

#### Individual assessments

Each assessment has been designed to be as authentic to as possible. Marking criteria / guidance for each assessment are provided via iLearn.

#### Due dates and assessement topics

All assessments are due on Friday at 11:55pm on week indicated. Any student who is unable to meet a deadline should contact the unit convenor and your mentor prior to the deadline to (possibly) avoid late pentalties.

#### **Late Assessment Submission Penalty**

From 1 July 2022, Students enrolled in session based units with written assessments will have the following university standard late penalty applied. Please see https://students.mq.edu.au/study/assessment-exams/assessments for more information. Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark) will be applied each day a written assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. Submission time for all written assessments is set at 11:55 pm. A 1-hour grace period is provided to students who experience a technical concern. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, students need to submit an application for Special Consideration.

#### Assessments where Late Submissions will be accepted

In this unit, late submissions will accepted for all assessments.

#### **Assessment Tasks**

Name	Weighting	Hurdle	Due
WHS portfolio	5%	No	Week 2
Project plan and reflection	20%	No	Weeks 2 & 13 or as agreed
Research methods report	50%	No	Week 13 or as agreed
Research records	20%	No	Week 13 or as agreed
Time on task diary	5%	No	Week 13

### WHS portfolio

Assessment Type 1: Portfolio Indicative Time on Task 2: 7 hours

Due: Week 2 Weighting: 5%

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 supervisor 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 project
- · Identify, critically evaluate and apply potential methods to undertake your research
- Work professionally with a research supervisor, and other research collaborators as required to plan and undertake a research project.

# Project plan and reflection

Assessment Type 1: Plan

Indicative Time on Task 2: 14 hours Due: Weeks 2 & 13 or as agreed

Weighting: 20%

This is a two part assessment. Part 1 is your plan outlining your project and the skills you plan to

learn during the course of that project. Include recommendations for planning and undertaking the research project to avoid potential pitfalls based on group discussion and reflection with your supervisors and research peers. Part 2 is your written reflection on your project plan. What worked, what did not work? How could you do it more effectively and/or efficiently next time?

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 project
- Identify, critically evaluate and apply potential methods to undertake your research
- Appropriately record research findings 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 supervisor, and other research collaborators as required to plan and undertake a research project.

# Research methods report

Assessment Type 1: Professional writing Indicative Time on Task 2: 35 hours

Due: Week 13 or as agreed

Weighting: 50%

You will write a formal scientific report on your research project with an emphasis on the methods and research plan. The content and format of this report should be presented in your project plan.

On successful completion you will be able to:

- Professionally communicate and defend your selected methodology
- · Identify, critically evaluate and apply potential methods to undertake your research
- Appropriately record research findings and utilise these records to produce a report and reflect on initial project design.

#### Research records

Assessment Type 1: Lab book Indicative Time on Task 2: 15 hours

Due: Week 13 or as agreed

Weighting: 20%

You will keep records of your research activities, including reflections on limitations and assumptions of your project design. The records must be appropriate to the type of project being undertaken. These may be on paper or in digital form as agreed upon in your project plan. It may be in the form of a lab or field book containing raw data, but it may also be in the form of database entries. Records may include analyses of data and a discussion of what the data reveal. Records may also contain subjective assessments of progress and productivity associated with your project.

On successful completion you will be able to:

- Appropriately record research findings 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

# Time on task diary

Assessment Type 1: Reflective Writing Indicative Time on Task 2: 7 hours

Due: Week 13 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 ways 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 project
- · Identify, critically evaluate and apply potential methods to undertake your research
- Appropriately record research findings and utilise these records to produce a report and reflect on initial project design.
- Work professionally with a research supervisor, and other research collaborators as required to plan and undertake a research project.

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- · the Writing Centre for academic skills support.

# **Delivery and Resources**

There is manditory meeting for supervisors and students in Week 1 (Tuesday 26th July at 10am) see iLearn for room and online options.

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (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 <u>Student Policies</u> (<u>https://students.mq.edu.au/support/study/policies</u>). 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.e du.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.mg.edu.au/admin/other-resources/student-conduct

#### Results

Results published on platform other than <a href="mailto:eStudent">eStudent</a>, (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 <a href="mailto:eStudent">eStudent</a>. For more information visit <a href="mailto:ask.mq.edu.au">ask.mq.edu.au</a> or if you are a Global MBA student contact <a href="mailto:globalmba.support@mq.edu.au">globalmba.support@mq.edu.au</a>

<sup>&</sup>lt;sup>1</sup> If you need help with your assignment, please contact:

<sup>&</sup>lt;sup>2</sup> Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation

### Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing and maths support</u>, academic skills development and wellbeing consultations.

### Student Support

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

### **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 Enquiries

Got a question? Ask us via AskMQ, or contact Service Connect.

# IT Help

For help with University computer systems and technology, visit <a href="http://www.mq.edu.au/about\_us/">http://www.mq.edu.au/about\_us/</a> offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.