



FOSE7701

STEM Research Topics 1

Session 1, In person-placement, North Ryde 2025

Science and Engineering Faculty level units

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General Information

Unit convenor and teaching staff

Martin Whiting

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Credit points

10

Prerequisites

Admission to GradDipResFSE

Corequisites

10cp at 7000 level

Co-badged status

Unit description

This unit comprises study of advanced disciplinary knowledge in STEM, and is designed to supplement a student's existing knowledge and coursework with targeted material and techniques that will be required to achieve their research goals. Activities may include attending a national or international specialist training opportunities, cross-institutional study or highly tailored units of study that are exemplars of current analytical/theoretical concepts or problem-solving applications. Topics and activities will be selected with the aid of the discipline advisor and an academic mentor.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Quality Education; Industry, Innovation and Infrastructure

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: Demonstrate advanced disciplinary knowledge and skills

ULO2: Employ self-directed learning to achieve educational goals

ULO3: Clearly communicate in written, oral or other forms as relevant to the activity undertaken

General Assessment Information

The activities and assessments are determined by you, your disciplinary guide, and the unit convener through a learning plan.

Your learning plan (see iLearn for a template and guidance) will outline your assessments (including weights, due dates, late penalties, marking guidance), and your other learning activities. This learning plan must be submitted using iLearn.

Assessment Tasks

Name	Weighting	Hurdle	Due
Learning plan	0%	No	Week 1
Research topic portfolio	100%	No	As agreed in learning plan

Learning plan

Assessment Type ¹: Learning plan

Indicative Time on Task ²: 2 hours

Due: **Week 1**

Weighting: **0%**

You will work with your mentor and/or the unit convener to develop a learning plan for the unit that specifies all the learning activities and assessment tasks to be undertaken. The total time to be spent on the unit should not to exceed 150 hrs.

On successful completion you will be able to:

- Employ self-directed learning to achieve educational goals
- Clearly communicate in written, oral or other forms as relevant to the activity undertaken

Research topic portfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 148 hours

Due: **As agreed in learning plan**

Weighting: **100%**

You will complete 2 - 3 assessment tasks as outlined in your approved learning plan, with a maximum of 50% weighting for any one task. Tasks can vary and may include a scientific report, report, essay or exam, as appropriate for a 10cp unit. Assessment tasks, weightings and due dates will follow the approved learning plan for a bespoke unit, or will be as listed in the unit guides when components of other units are being undertaken with the approval of the unit

convener and discipline advisor.

On successful completion you will be able to:

- Demonstrate advanced disciplinary knowledge and skills
- Employ self-directed learning to achieve educational goals
- Clearly communicate in written, oral or other forms as relevant to the activity undertaken

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

This Graduate Diploma of Research unit is designed to provide flexibility in learning options. The goal of this unit is to provide a way for you to acquire capabilities that will be useful for your MRes project and in your future research career. The goal is not to provide you with extra time to start their projects.

Unit Schedule

This unit is not officially timetabled -- each student needs to meet with your disciplinary guide to determine your meeting times / locations. Any meetings should be included in your learning plan.

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 connect.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/>

Academic Success

[Academic Success](#) 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 the [Service Connect Portal](#), 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.

Changes from Previous Offering

This unit has not been notably impacted by the recent assessment review, but the learning plan template has been significantly revised for 2025. We are grateful to students who have provided constructive feedback in the past, and we always encourage students to provide feedback on the way the unit is run.

Unit information based on version 2025.04 of the [Handbook](#)