FOSE7701

STEM research topics 1

Session 1, In person-placement, North Ryde 2024

Science and Engineering Faculty level units

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**General Information**

Unit convenor and teaching staff
Martin Whiting  
martin.whiting@mq.edu.au

Credit points  
10

Prerequisites  
Admission to BPhil/MRes

Corequisites

Co-badged status
It is co-badged with NSCI7930.

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.

**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](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
## Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment tasks (3+)</td>
<td>95%</td>
<td>No</td>
<td>Week 8-10</td>
</tr>
<tr>
<td>Learning plan</td>
<td>5%</td>
<td>No</td>
<td>Week 3</td>
</tr>
</tbody>
</table>

### Assessment tasks (3+)**

Assessment Type 1: Portfolio  
Indicative Time on Task 2: 141 hours  
Due: **Week 8-10**  
Weighting: **95%**

You will have a minimum of 3 assessment tasks, with a maximum of 60% 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 and weightings will follow the learning plan agreed upon with the mentor for a project-based unit, or will be as listed in the unit guides when components of other units are being undertaken with the approval of the unit convenor.

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

### Learning plan

Assessment Type 1: Plan  
Indicative Time on Task 2: 7 hours  
Due: **Week 3**  
Weighting: **5%**

You will work with your mentor and/or unit convenor to develop a learning plan for the unit that includes all assessment tasks and the total time to be spent on these tasks (not to exceed 141 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

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 MRes unit is designed to provide flexibility in learning options for year 1 Masters of Research students. The goal of these units is to provide a way for students to acquire capabilities that will be useful for their year 2 project or cross-disciplinary experience. The goal is not to provide them with extra time to start their projects.

The activities and assessments are determined between the supervisor and the student and equate to a workload of 150 hours.

**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 Student 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) 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](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/](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.

Unit information based on version 2024.01 of the Handbook