ENGG4093

Engineering Research Thesis Extension B

Session 2, In person-scheduled-weekday, North Ryde 2026

School of Engineering

Contents

General Information

Unit convenor and teaching staff
Unit Convenor
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Appointment via email

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Credit points
10

Prerequisites
Permission by special approval

Corequisites
CIVL4091 or COMP4093 or ELEC4093 or MECH4093 or MTRN4093 or TELE4093

Co-badged status

Unit description
This unit may be taken concurrently with any Engineering Research Thesis B unit to allow deeper study of the thesis topic. Students should consider taking this unit if they are doing an industry thesis, international thesis project, or are planning to go on to higher degree research. The expectations associated with workload and contribution in this unit supersede those in the required Engineering Research Thesis B unit (XXXX4091 or XXX4093).

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals (UNSDGs) 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: Undertake and complete a complex engineering-specific research project.
ULO2: Develop new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results.
ULO3: Communicate research results through an effective written dissertation and oral presentation to a variety of audiences in research fora.
ULO4: Produce technical writing and presentations at a standard that would be acceptable in a professional engineering workplace.
ULO5: Identify, formulate and solve complex open-ended engineering problems in an ethical manner.
ULO6: Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in the engineering field of your course.

General Assessment Information

Grading and Passing Requirement for the Unit

In order to pass this unit a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD).

For further details about grading, please refer below in the policies and procedures section.

Late Submissions and Re-submissions

All assessments must be submitted by 23:59pm (Sydney Time) on their due date. Should the activities be missed due to illness or misadventure, students may apply for Special Consideration, as detailed below.

- **Thesis:** Late submissions are not allowed unless there is an approved special consideration request. Resubmissions are not allowed.
- **Presentation:** Late submissions are not allowed unless there is an approved special consideration request showing that the student cannot make the presentation on the presentation date. Resubmissions are not allowed.
- **Logbooks (Supervisor Project Management Assessment):** Late submissions are not allowed unless there is an approved special consideration request. Resubmissions are not allowed.

Project Implementation

If your project requires on-campus lab attendance and you are not able to get back to campus on time, please contact with the unit convenor and your supervisor as soon as possible.

Short Extensions

Students are allowed to request an extra 3 calendar days to complete eligible assessments. The eligible assessment task for short extension in this unit is the logbook submission for supervisor

project management assessment.

Release Dates

Results for all assessment tasks will be released after the examination period, in accordance with the University's official examination results publication schedule.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Thesis	70%	No	08/11/2026	Individual	No	Open
Presentation	20%	No	Weeks 14-16	Individual	No	Observed
Supervisor Project Management Assessment	10%	No	08/11/2026	Individual	Yes	Observed

Thesis

Assessment Type [1]: Written Submission
Indicative Time on Task [2]: 50 hours
Due: **08/11/2026**
Weighting: **70%**
Groupwork/Individual: Individual
Short extension [3]: No
AI Approach: Open

You will prepare a thesis report on your project. It will include a literature review, technical execution of the project, discussion and understanding of results, and conclusions and added value of work.

On successful completion you will be able to:

- Undertake and complete a complex engineering-specific research project.
- Develop new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results.
- Communicate research results through an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Produce technical writing and presentations at a standard that would be acceptable in a professional engineering workplace.
- Identify, formulate and solve complex open-ended engineering problems in an ethical manner.
- Apply research principles, research methods, and technical standards to identify and

provide solutions to complex problems in the engineering field of your course.

Presentation

Assessment Type [1]: Presentation task
Indicative Time on Task [2]: 10 hours
Due: **Weeks 14-16**
Weighting: **20%**
Groupwork/Individual: Individual
Short extension [3]: No
AI Approach: Observed

You will deliver a presentation of your project at the end of the unit.

On successful completion you will be able to:

- Undertake and complete a complex engineering-specific research project.
- Develop new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results.
- Communicate research results through an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Produce technical writing and presentations at a standard that would be acceptable in a professional engineering workplace.
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- Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in the engineering field of your course.

Supervisor Project Management Assessment

Assessment Type [1]: Professional task
Indicative Time on Task [2]: 15 hours
Due: **08/11/2026**
Weighting: **10%**
Groupwork/Individual: Individual
Short extension [3]: Yes
AI Approach: Observed

You will meet with supervisors regularly to support the development of your knowledge and skills. You will be assessed by your supervisor based on your supervisor's judgement of self-management, intellectual independence, initiative and your written logbook. You are required to maintain a logbook detailing day-to-day activities associated with the project.

On successful completion you will be able to:

- Undertake and complete a complex engineering-specific research project.
- Develop new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results.
- Communicate research results through an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Produce technical writing and presentations at a standard that would be acceptable in a professional engineering workplace.
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[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
- Academic Success 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.

[3] An automatic short extension is available for some assessments. Apply through the Service Connect Portal.

Delivery and Resources

Unit Delivery

This is a project-based unit and has no scheduled lectures or tutorial sessions. Special lectures may be organised and related announcements will be made via iLearn.

Week 1 Activities

Regular meetings with project supervisors start in Week 1.

Logbook

This unit requires a logbook. The students should maintain an individual logbook which should contain a dated log of day-to-day activities undertaken in relation to the project.

Technology Used and Required

The students are required to discuss with their supervisor about the software/hardware resources required for analysis, simulation, testing and experiments related to their project. In addition, word processing software (MS Word, Latex etc.) will be required to produce the preliminary thesis and MS PowerPoint or equivalent software will be required for presentation

slides.

Unit Webpage

Access from the online iLearn System at http://ilearn.mq.edu.au

Required and Recommended Texts/Materials

There is not set textbook for this unit. The students are required to discuss with their supervisor regarding required/recommended reading materials, as suited to individual project needs.

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

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.

- Ask a Study Coach
- 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 https://students.mq.edu.au/support/technology/service-desk.

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

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page. Student feedback from the previous offering of this unit was very positive overall, with students pleased with the clarity around assessment requirements and the level of support from teaching staff. As such, no change to the delivery of the unit is planned, however we will continue to strive to improve the level of support and the level of student engagement.

Engineers Australia Competency Mapping

EA Competency Standard		Unit Learning Outcomes
Knowledge and Skill Base	1.1 Comprehensive, theory-based understanding of the underpinning fundamentals applicable to the engineering discipline.	
	1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing.	
	1.3 In-depth understanding of specialist bodies of knowledge	
	1.4 Discernment of knowledge development and research directions	ULO1, ULO2
	1.5 Knowledge of engineering design practice	
	1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice.	ULO6
Engineering Application Ability	2.1 Application of established engineering methods to complex problem solving	ULO5, ULO6
	2.2 Fluent application of engineering techniques, tools and resources.	ULO2, ULO5, ULO6
	2.3 Application of systematic engineering synthesis and design processes.	ULO2
	2.4 Application of systematic approaches to the conduct and management of engineering projects.	ULO1
Professional and Personal Attributes	3.1 Ethical conduct and professional accountability.	ULO4, ULO5
	3.2 Effective oral and written communication in professional and lay domains.	ULO3, ULO4
	3.3 Creative, innovative and pro-active demeanour.	
	3.4 Professional use and management of information.	ULO2, ULO4

	3.5 Orderly management of self, and professional conduct.	ULO3
	3.6 Effective team membership and team leadership	

Unit information based on version 2026.04 of the Handbook