



COMP4093

Software Engineering Research Thesis B

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

School of Computing

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General Information

Unit convenor and teaching staff Kate Stefanov kate.stefanov@mq.edu.au
Credit points 10
Prerequisites 20cp at 4000 level and COMP4092
Corequisites
Co-badged status
Unit description In this unit students will conduct the second half of their individual research thesis on a topic in Software Engineering major under the direction of an academic supervisor. Students will implement the previously developed project plan conducting the experimental and theoretical work to obtain results and analysis presented in the form of a final research thesis. 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 a complex engineering specific research project, based on a discipline specific research question, and involving the development of new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results, culminating in an effective written dissertation and oral presentation to a variety of audiences in research fora.

ULO2: Demonstrate technical writing and presentation skills at a standard that would be acceptable in a professional engineering workplace.

ULO3: Identify, formulate and solve complex open-ended software engineering research

problems in an ethical manner.

ULO4: Apply discipline specific research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

General Assessment Information

Unit Delivery

This is a project-based unit. Development of knowledge and skills will be guided by both weekly sessions with the unit convenor and also regular interaction with your supervisor.

The one-hour sessions (lectures / workshops / discussions) with the unit convenor 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.

Communication

We will communicate with you via your university email or through announcements on iLearn. Queries to the convenor can either be placed before/after the weekly meeting, on the iLearn discussion board or sent via email to the convenor's address from your university email address.

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
<u>Presentation</u>	20%	No	Weeks 14-16	Individual	No	Observed
<u>Thesis</u>	70%	No	08/11/2026	Individual	No	Open

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Supervisor Project Management Assessment	10%	No	08/11/2026	Individual	Yes	Observed

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 a complex engineering specific research project, based on a discipline specific research question, and involving the development of new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results, culminating in an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Demonstrate technical writing and presentation skills at a standard that would be acceptable in a professional engineering workplace.
- Identify, formulate and solve complex open-ended software engineering research problems in an ethical manner.
- Apply discipline specific research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

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 a complex engineering specific research project, based on a discipline specific research question, and involving the development of new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results, culminating in an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Demonstrate technical writing and presentation skills at a standard that would be acceptable in a professional engineering workplace.
- Identify, formulate and solve complex open-ended software engineering research problems in an ethical manner.
- Apply discipline specific research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

Supervisor Project Management Assessment

Assessment Type ¹: Portfolio

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 a complex engineering specific research project, based on a discipline specific research question, and involving the development of new knowledge, using appropriate technical and/or laboratory skills, data management and synthesis, critical analysis and interpretation of results, culminating in an effective written dissertation and oral presentation to a variety of audiences in research fora.
- Demonstrate technical writing and presentation skills at a standard that would be acceptable in a professional engineering workplace.
- Identify, formulate and solve complex open-ended software engineering research problems in an ethical manner.
- Apply discipline specific research principles, research methods, and technical standards

to identify and provide solutions to complex problems in software engineering.

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

One hour weekly meeting with the unit convenor and a weekly meeting with your supervisor.

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.

- [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.

Unit information based on version 2026.03 of the [Handbook](#)