



# COMP4093

## Software Engineering Research Thesis B

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

*School of Computing*

### Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	6
<u>Policies and Procedures</u>	6

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## General Information

Unit convenor and teaching staff Convener, Lecturer Kate Stefanov <a href="mailto:kate.stefanov@mq.edu.au">kate.stefanov@mq.edu.au</a> By appointment
Credit points 10
Prerequisites 20cp at 4000 level
Corequisites COMP4092 or COMP410
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.

## 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 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 problems

in an ethical manner.

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

## General Assessment Information

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 Report:** Late penalty applies 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. Special considerations for presentations are approved only if there are long delays due to extenuating circumstances. Resubmissions are not allowed.

**Logbooks (Management and Engagement):** Late penalty applies unless there is an approved special consideration request. Resubmissions are not allowed.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<u>Thesis</u>	70%	Yes	Week 13
<u>Meeting with Supervisors</u>	0%	Yes	Weekly or fortnightly. Log due in Week 13
<u>Management and Engagement</u>	10%	No	Daily record of your progress. Submit in Week 13
<u>Presentation</u>	20%	No	Week 14 -16 at a time to be determined

### Thesis

Assessment Type <sup>1</sup>: Thesis

Indicative Time on Task <sup>2</sup>: 50 hours

Due: **Week 13**

Weighting: **70%**

**This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)**

Students are required to prepare a thesis report about their projects, including the 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 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 problems in an ethical manner.
- Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

## Meeting with Supervisors

Assessment Type <sup>1</sup>: Participatory task

Indicative Time on Task <sup>2</sup>: 5 hours

Due: **Weekly or fortnightly. Log due in Week 13**

Weighting: **0%**

**This is a hurdle assessment task (see [assessment policy](#) for more information on hurdle assessment tasks)**

Students are required to meet with their supervisors on a weekly basis, once the project commences. Such weekly meetings should aim to seek feedback and steer the project, and would normally last at least 15-30 minutes or more. In order to pass this unit, a student must attend at least 6 out of 12 weekly meetings from Week 1 to Week 12. In case a face-to-face meeting is not possible, a meeting must be conducted using telephone or video-conference. Meetings should be logged using the consultation meeting log sheet provided on iLearn.

On successful completion you will be able to:

- Undertake a complex engineering specific research project 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 problems in an ethical manner.
- Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

## Management and Engagement

Assessment Type <sup>1</sup>: Participatory task

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Daily record of your progress. Submit in Week 13**

Weighting: **10%**

Students are required to actively engage with the project-related activities, and to demonstrate a professional demeanour towards project management and record-keeping. Students are also required to maintain a logbook for this unit, where dated records of day-to-day activities associated with the project are maintained.

On successful completion you will be able to:

- Undertake a complex engineering specific research project 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 problems in an ethical manner.
- Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.

## Presentation

Assessment Type <sup>1</sup>: Presentation

Indicative Time on Task <sup>2</sup>: 10 hours

Due: **Week 14 -16 at a time to be determined**

Weighting: **20%**

Students are required to deliver a comprehensive oral presentation about their project outcomes at the end of the unit.

On successful completion you will be able to:

- Undertake a complex engineering specific research project 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 problems in an ethical manner.
  - Apply research principles, research methods, and technical standards to identify and provide solutions to complex problems in software engineering.
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<sup>1</sup> 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.

<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

## Delivery and Resources

There is only one one-hour lecture per week in this unit as the bulk of the work on your thesis project.

The lecture will be conducted on campus, face to face.

## 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 [ask.mq.edu.au](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/>

## 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 [http://www.mq.edu.au/about\\_us/offices\\_and\\_units/information\\_technology/help/](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.