



# COMP4092

## Software Engineering Research Thesis A

Session 1, In person-scheduled-weekday, North Ryde 2022

*School of Computing*

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## General Information

Unit convenor and teaching staff Kate Stefanov <a href="mailto:kate.stefanov@mq.edu.au">kate.stefanov@mq.edu.au</a>
Credit points 10
Prerequisites (COMP332 or COMP3000) and (COMP333 or COMP3010) and (COMP335 or COMP3100)
Corequisites (COMP430 or COMP4050) or (COMP434 or COMP4060)
Co-badged status
Unit description In this unit students will conduct the first half of an individual research thesis project on a topic in the Software Engineering major under the direction of an academic supervisor. The focus of the work will be on developing the project proposal, conducting the literature review and project planning and design.

## 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:** Analyse a complex software engineering problem and propose solutions involving the development of new knowledge or the application of cutting edge techniques.

**ULO2:** Plan a major software engineering research project, including the design of necessary processes, information management, records keeping, project management, and communications.

**ULO3:** Demonstrate an advanced knowledge of contextual factors, research direction, and foundational concepts in software engineering.

**ULO4:** Apply core software engineering principles and practices to a research or industry challenge.

**ULO5:** Demonstrate intellectual independence, and an in-depth understanding of a

specialist topic within software engineering through verbal and written communication.

## General Assessment Information

### Hurdle Requirements

The Preliminary Thesis is a hurdle requirement. A grade of 50% or more on the Preliminary Thesis is a condition of passing this unit. If you are given a second opportunity to submit your thesis as a result of failing to meet the minimum mark required, your submission will be due during the supplementary examination period and will be notified of the exact day and time by the unit convenor. The second attempt at a hurdle assessment is graded as pass fail. The maximum grade for a second attempt is the hurdle threshold grade.

Regular meetings with thesis supervisor is a hurdle requirement. Students are required to attend at least 5 out of 10 weekly meetings from Week 4 to Week 13. See details in assessment task description.

### Late submissions and Re-submissions

Submission of the thesis reports and presentations must be undertaken at the time indicated in the unit guide. Should these activities be missed due to illness or misadventure, students may apply for Special Consideration.

All other assessments must be submitted by 5:00pm (Sydney Time) on their due date.

Should these assessments be missed due to illness or misadventure, students should apply for Special Consideration.

Assessments not submitted by the due date will receive a mark of zero.

### 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.

## Assessment Tasks

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

## Preliminary Thesis Material

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

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)**

A major piece of work towards the thesis that will be submitted at the end of the succeeding unit COMP4093, this document details the plan of work, relevant literature, methodological issues, and a timeline for COMP4093.

On successful completion you will be able to:

- Analyse a complex software engineering problem and propose solutions involving the development of new knowledge or the application of cutting edge techniques.
- Plan a major software engineering research project, including the design of necessary processes, information management, records keeping, project management, and communications.
- Demonstrate an advanced knowledge of contextual factors, research direction, and foundational concepts in software engineering.
- Apply core software engineering principles and practices to a research or industry challenge.

## Meetings with supervisors and clients

Assessment Type <sup>1</sup>: Simulation/role play

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)**

Regular meetings with clients are essential for quality software engineering

On successful completion you will be able to:

- Plan a major software engineering research project, including the design of necessary

processes, information management, records keeping, project management, and communications.

- Demonstrate intellectual independence, and an in-depth understanding of a specialist topic within software engineering through verbal and written communication.

## Engineering Management and Engagement

Assessment Type <sup>1</sup>: Field book

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

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

Weighting: **10%**

An opportunity to demonstrate (and if necessary, learn) the principles of good engineering management, record keeping, and professional engagement

On successful completion you will be able to:

- Plan a major software engineering research project, including the design of necessary processes, information management, records keeping, project management, and communications.
- Apply core software engineering principles and practices to a research or industry challenge.

## Research Plan 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%**

A face-to-face presentation of the proposed research, including background, reasoning and methodology.

On successful completion you will be able to:

- Analyse a complex software engineering problem and propose solutions involving the development of new knowledge or the application of cutting edge techniques.
- Demonstrate an advanced knowledge of contextual factors, research direction, and foundational concepts in software engineering.

<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 1-hour lecture per week in this unit as the bulk of the work is in preparation for your thesis.

The lecture are expected to be conducted face to face, on campus in S1, 2022.

## 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.

## Changes from Previous Offering

### **IMPORTANT NOTE (rather than a change)**

Until 2022 (inclusive), most students enrolling in COMP4092 will enrol concurrently in ENGG4092. This is so that students can complete "double sized" project units (20 credit points) as required in the programs that students originally entered. This will be further explained in the first lecture.