COMP4092

Software Engineering Research Thesis A

Session 1, Special circumstances 2021

School of Computing

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Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and other small group activities on campus, and most will keep an online version available to those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face activities for your unit, please go to timetable viewer. To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

General Information

Unit convenor and teaching staff
Gaurav Gupta
gaurav.gupta@mq.edu.au

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 Task

The hurdle task for this unit is the preliminary thesis report. A grade of 50% (35 out of 70) or more on the preliminary thesis is a necessary but not sufficient condition for passing this unit. Students who receive greater than or equal to 40% (28 out of 70) but less than 50% (35 out of 70) will be given a second opportunity, in which case your submission will be due during the supplementary examination period and you 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 (35 out of 70).

Late Submission

No extensions will be granted without an approved application for Special Consideration. There will be a deduction of 10% of the total available marks made from the total awarded mark for each 24 hour period or part thereof that the submission is late. For example, 25 hours late in submission for an assignment worth 10 marks – 20% penalty or 2 marks deducted from the total.

Assessment Tasks

Name	Weighting	Hurdle	Due
Meetings with supervisors and clients	0%	Yes	Weekly or fortnightly, in consultation with your supervisor
Engineering Management and Engagement	10%	No	Daily record of your progress
Preliminary Thesis Material	70%	Yes	Week 13
Research Plan Presentation	20%	No	Week 14 or 15 at a time to be determined

Meetings with supervisors and clients

Assessment Type [1]: Simulation/role play
Indicative Time on Task [2]: 5 hours
Due: **Weekly or fortnightly, in consultation with your supervisor**
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 [1]: Field book
Indicative Time on Task [2]: 10 hours
Due: **Daily record of your progress**
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.

Preliminary Thesis Material

Assessment Type [1]: Plan
Indicative Time on Task [2]: 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.

Research Plan Presentation

Assessment Type [1]: Presentation
Indicative Time on Task [2]: 10 hours
Due: **Week 14 or 15 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.

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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
- 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

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 will be conducted via Zoom and is synchronous and interactive.

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
- Grade Appeal Policy
- Complaint Management 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 ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit http://students.mq.edu.au/support/

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- Getting help with your assignment
- Workshops
- StudyWise
- 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

Students with a disability are encouraged to contact the Disability Service who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

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.

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.