COMP4092
Software Engineering Research Thesis A
Session 2, Special circumstances 2021

Department of Computing

Contents

General Information  
Learning Outcomes  
General Assessment Information  
Assessment Tasks  
Delivery and Resources  
Policies and Procedures

Disclaimer
Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

Session 2 Learning and Teaching Update

The decision has been made to conduct study online for the remainder of Session 2 for all units WITHOUT mandatory on-campus learning activities. Exams for Session 2 will also be online where possible to do so.

This is due to the extension of the lockdown orders and to provide certainty around arrangements for the remainder of Session 2. We hope to return to campus beyond Session 2 as soon as it is safe and appropriate to do so.

Some classes/teaching activities cannot be moved online and must be taught on campus. You should already know if you are in one of these classes/teaching activities and your unit convener will provide you with more information via iLearn. If you want to confirm, see the list of units with mandatory on-campus classes/teaching activities.

Visit the MQ COVID-19 information page for more detail.
General Information

Unit convenor and teaching staff
Kate Stefanov
kate.stefanov@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://students.mq.edu.au/important-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
specialist topic within software engineering through verbal and written communication.

**General Assessment Information**

**Meetings with supervisors and clients (0%)**

**Task:** Weekly or fortnightly meetings with your supervisor and clients.

*This is a hurdle assessment task.* For more information on hurdle assessment tasks, follow the Assessment Policy link in the Policies and Procedures section below.

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 (10%)**

**Task:** Record your progress daily in a field book.

**Due:** Throughout

An opportunity to demonstrate (and if necessary, learn) the principles of good engineering management, record keeping, and professional engagement. Students are required to maintain a field book 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:

- 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 (70%)**

**Task:** Produce Plan / Draft thesis document

**Due:** Week 13

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.
This is a hurdle assessment task. For more information on hurdle assessment tasks, follow the Assessment Policy link in the Policies and Procedures section below.

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 (20%)

Task: Presentation

Due: Week 14 or 15 at a time to be determined

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.

Note: the Estimated time-on-task is only indicative of the time required for completion of the assessment task and is subject to individual variation.

### Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Plan Presentation</td>
<td>20%</td>
<td>No</td>
<td>Week 14 or 15 at a time to be determined</td>
</tr>
<tr>
<td>Engineering Management and Engagement</td>
<td>10%</td>
<td>No</td>
<td>Daily record of your progress</td>
</tr>
<tr>
<td>Preliminary Thesis Material</td>
<td>70%</td>
<td>Yes</td>
<td>Week 13</td>
</tr>
</tbody>
</table>
### Meetings with supervisors and clients

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings with supervisors and clients</td>
<td>0%</td>
<td>Yes</td>
<td>Weekly or fortnightly, in consultation with your supervisor</td>
</tr>
</tbody>
</table>

### Research Plan Presentation

**Assessment Type**: Presentation  
**Indicative Time on Task**: 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.

### Engineering Management and Engagement

**Assessment Type**: Field book  
**Indicative Time on Task**: 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.

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.

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 Learning Skills Unit 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://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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 (Note: The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.)

Students seeking more policy resources can visit the Student Policy Gateway (https://students.mq.edu.au/support/study/student-policy-gateway). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit Policy Central (https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central).
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](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/](http://students.mq.edu.au/support/)

Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://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 Enquiry Service

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

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

Equity 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.

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.