



# COMP1050

## Introduction to the Study of Software Engineering

Session 1, Special circumstances 2021

*School of Computing*

### Contents

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<a href="#"><u>General Information</u></a>	2
<a href="#"><u>Learning Outcomes</u></a>	2
<a href="#"><u>General Assessment Information</u></a>	3
<a href="#"><u>Assessment Tasks</u></a>	4
<a href="#"><u>Delivery and Resources</u></a>	6
<a href="#"><u>Unit Schedule</u></a>	7
<a href="#"><u>Policies and Procedures</u></a>	7
<a href="#"><u>Changes from Previous Offering</u></a>	9

#### **Disclaimer**

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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

Convenor and Lecturer

James Zheng

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4 Research Park Drive

By Appointment (via email)

Lecturer

Carl Svensson

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Credit points

10

Prerequisites

Enrolment in BEng degree

Corequisites

Co-badged status

Unit description

This units covers the fundamentals of software engineering, including understanding system requirements, finding appropriate engineering compromises, learning software engineering culture, forming camaraderie, understanding basic methods of design, coding, and testing, team software development, and the application of engineering tools.

## 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:** Work with version control, configuration management, unit/regression testing, issue tracking, and debugging tools.

**ULO2:** Create a project plan.

**ULO3:** Create and analyse design models.

**ULO4:** Make engineering tradeoffs.

**ULO5:** Demonstrate an understanding of software engineering culture and form camaraderie.

## General Assessment Information

Please note that the first assessment item, which involves group work, is a hurdle task. This means that you cannot complete COMP1050 satisfactorily without completing the hurdle task satisfactorily. You will need to conscientiously attend practical classes and engage with the work with your tutor and fellow students. (Sometimes people forget this, and it is very sad to see people who have obtained enough marks to pass a course end up failing the course because they neglected to work conscientiously on a hurdle requirement.) For the hurdle requirement you will be assessed individually on your group participation and results.

As with all group work, you need to actively take part, and be present and engaged at every opportunity. We expect you to be involved every week, but we know, of course, that you might be ill or something once or twice. You need to be present and actively engaged in at least eight of the twelve sessions to be eligible to meet the hurdle, and if illness or anything else leads you to miss more than four sessions you should speak to the convenor and withdraw from COMP1050. (Seek advice and possible exemption from this requirement if you are seriously affected by coronavirus quarantine by contacting the convenor as early as possible including full evidence of your circumstances.)

The "0 hours" estimated time required for that task arises because the task is completed during your scheduled practical class (and class hours are recorded separately).

## Late Submissions

As with all software engineering, timely submission is essential. Late submissions **will not be accepted**. If you are seriously affected by unavoidable and unforeseeable circumstances, you should email the unit convenor as early as possible, and certainly before the due date of the piece of work. In any case, be sure to submit by the due date whatever work you have available for submission. (If after application for for Special Consideration as a result of unavoidable disruption to studies the university deems you to be eligible to complete further work on the assessment item you may be given an opportunity to add to your submission or you may be given a substitute task.)

## Written submissions

Software engineering frequently requires written reports, and such reports need to be, as far as possible, of professional quality. Students need to strive to present work which is written clearly, with good grammar, correct word usage, correct punctuation and correct spelling. Wherever required, all written work must be properly referenced and conform to standard stylistic conventions.

## Practicals

Note that the practical classes in COMP1050 include assessable work. They provide an opportunity for you to learn and develop your skills and you should also be aware that you will be being assessed each week.

## Tutorials

Tutorial classes are intended to help you in your individual learning and involve no direct assessment.

## Final Examination

Despite what it says above, the final examination will not be modularised in 2020 due to the disruptions caused by the novel coronavirus. The examination will be held during the university's formal examination period after the semester's teaching has been completed. We have no control over when, during that period, the examination is scheduled, so students must hold themselves ready for examination and not schedule conflicting activities (such as travel) until the date of the examination is published, or they should arrange for such activities to begin only after the entire formal examination period has ended.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#"><u>Working in teams on a substantial software engineering project</u></a>	40%	Yes	Weekly + Reports (week 6 + week 12)
<a href="#"><u>Assignment 1</u></a>	20%	No	Monday Week 7- 4pm
<a href="#"><u>Assignment 2</u></a>	20%	No	Monday Week 13 - 4pm
<a href="#"><u>Final Exam</u></a>	20%	No	During University Exam Period

### Working in teams on a substantial software engineering project

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

Indicative Time on Task <sup>2</sup>: 0 hours

Due: **Weekly + Reports (week 6 + week 12)**

Weighting: **40%**

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

Students work in groups to develop week-by-week a software engineering project, both learning the principles and practices of software engineering, and gaining an overview of a wide range of

software engineering areas (that are studied in much greater depth in individual units later in their program).

On successful completion you will be able to:

- Work with version control, configuration management, unit/regression testing, issue tracking, and debugging tools.
- Create a project plan.
- Create and analyse design models.
- Make engineering tradeoffs.
- Demonstrate an understanding of software engineering culture and form camaraderie.

## Assignment 1

Assessment Type <sup>1</sup>: Problem set

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Monday Week 7 - 4pm**

Weighting: **20%**

An opportunity to demonstrate the learning achieved in the first half of the unit's lectures

On successful completion you will be able to:

- Work with version control, configuration management, unit/regression testing, issue tracking, and debugging tools.
- Create a project plan.

## Assignment 2

Assessment Type <sup>1</sup>: Problem set

Indicative Time on Task <sup>2</sup>: 20 hours

Due: **Monday Week 13 - 4pm**

Weighting: **20%**

An opportunity to demonstrate the learning achieved in the second half of the unit's lectures

On successful completion you will be able to:

- Create and analyse design models.

- Make engineering tradeoffs.

## Final Exam

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

Indicative Time on Task <sup>2</sup>: 19 hours

Due: **During University Exam Period**

Weighting: **20%**

An invigilated examination of the unit's content.

On successful completion you will be able to:

- Work with version control, configuration management, unit/regression testing, issue tracking, and debugging tools.
- Create a project plan.
- Create and analyse design models.
- Make engineering tradeoffs.
- Demonstrate an understanding of software engineering culture and form camaraderie.

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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

Lectures take place every Monday from 4pm to 6pm via Zoom - details will be posted in the COMP1050 iLearn page.

For practical classes, please check your individual timetable. You are expected to attend two hours of lectures and a two hour practical every week (**with the practicals starting in week 1**). Class participation in lectures and practicals is compulsory.

There is no textbook or other special resource required for this unit -- the unit is fully self-contained. Your participation in all activities is essential.

## Unit Schedule

Week Starting	Semester Week	Lecturer	Topic Areas	Comments / Assessment Notes
22 February	1	James	Software Engineering Overview + Project Overview	
01 March	2	James	SDLC + Software Processes	
08 March	3	James	Agile Software Project Management	
15 March	4	James	Version Control Systems and Approaches	
22 March	5	James	Software Design Architecture Overview	
29 March	6	James	Software Testing + Latest Trends	
05 April	Mid-semester teaching break			
12 April	Mid-semester teaching break			
19 April	7	Carl	Software Testing (Unit and Regression Testing)	Assignment 1 Due Monday before the lecture
26 April	8	Carl	Issue Tracking	
03 May	9	Carl	Software Architecture Analysis and Design Models	
10 May	10	Carl	Professionalism and Ethics	
17 May	11	Carl	Software Traceability and Configuration	
24 May	12	James + Carl	Revision	Final Project Submission
31 May	13	James + Carl	Looking ahead in your degree	Assignment 2 Due Monday before the lecture
07 June	Exam Period			

## 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](#)
- [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) (<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)

## 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](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 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](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto: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/](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

This is the second offering of COMP1050. Last year, the unit transitioned to an online-first format due to the COVID19 - related restrictions. Subject to the latest health advice and other regulatory impacts, there will be on-campus classes for COMP1050 practical classes, but the Lectures will still be delivered online through Zoom.

The 40% project weighting remains the same, however, the breakdown of checkpoint milestones and weekly engagement have changed based on feedback from the previous offering.

We also updated the lectures and practical content progression based on the previous feedback.