COMP1050
Introduction to the Study of Software Engineering
Session 1, Special circumstances 2021
Department 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.

https://unitguides.mq.edu.au/unit_offerings/139227/unit_guide/print
General Information

Unit convenor and teaching staff
Convenor and Lecturer
James Zheng
james.zheng@mq.edu.au
Contact via email
4 Research Park Drive
By Appointment (via email)

Lecturer
Carl Svensson
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Contact via email
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By Appointment (via email)

Credit points
10

Prerequisites
Enrolment in BEng degree

Corequisites

Co-badged status

Unit description
This unit 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://students.mq.edu.au/important-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

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

Working in teams on a substantial software engineering project
Assessment Type ¹: Participatory task
Indicative Time on Task ²: 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 1: Problem set
Indicative Time on Task 2: 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 1: Problem set
Indicative Time on Task 2: 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.
Final Exam

Assessment Type ¹: Examination
Indicative Time on Task ²: 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.

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

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

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

### 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:
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 Enquiry Service
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

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/.

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.