



# COMP1050

## Introduction to the Study of Software Engineering

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

*School of Computing*

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## General Information

Unit convenor and teaching staff

Convenor/Lecturer

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Lecturer

Ansgar Fehnker

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Credit points

10

Prerequisites

Admission to BEng

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://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

Late submissions **will not be accepted** without an approved Special Consideration request. Assessments submitted after the due date will receive a mark of **zero**.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Assignment 1</a>	20%	No	Monday Week 7- 5pm
<a href="#">Assignment 2</a>	20%	No	Monday Week 13 - 5pm
<a href="#">Working in teams on a substantial software engineering project</a>	40%	Yes	Weekly + Reports (week 6 + week 12)
<a href="#">Final Exam</a>	20%	No	During University Exam Period

### Assignment 1

Assessment Type <sup>1</sup>: Problem set  
Indicative Time on Task <sup>2</sup>: 20 hours  
Due: **Monday Week 7- 5pm**  
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 - 5pm**  
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.

## 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.

## 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.

<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 Thursday from 10am to 12pm **in-person at 23 Wallys Walk - T1 Theatre.**

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	Interim Project Submission

Week Starting	Semester Week	Lecturer	Topic Areas	Comments / Assessment Notes
05 April	Mid-semester teaching break			
12 April	Mid-semester teaching break			
19 April	7	Ansgar	Software Testing (Unit and Regression Testing)	Assignment 1 Due Monday before the lecture
26 April	8	Ansgar	Issue Tracking	
03 May	9	Ansgar	Software Architecture Analysis and Design Models	
10 May	10	Ansgar	Professionalism and Ethics	
17 May	11	Ansgar	Software Traceability and Configuration	
24 May	12	James + Ansgar	Revision	Final Project Submission
31 May	13	James + Ansgar	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](#)
- [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.