COMP1050
Introduction to the Study of Software Engineering
Session 1, In person-scheduled-weekday, North Ryde 2022

School of Computing

Contents

General Information ........................................... 2
Learning Outcomes ........................................... 2
General Assessment Information ......................... 3
Assessment Tasks ............................................ 3
Delivery and Resources ....................................... 5
Unit Schedule .................................................. 5
Policies and Procedures ....................................... 6

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## General Information

<table>
<thead>
<tr>
<th>Unit convenor and teaching staff</th>
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<tbody>
<tr>
<td>Convenor/Lecturer</td>
</tr>
<tr>
<td>James Zheng</td>
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<tr>
<td><a href="mailto:james.zheng@mq.edu.au">james.zheng@mq.edu.au</a></td>
</tr>
<tr>
<td>Lecturer</td>
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<tr>
<td>Ansgar Fehnker</td>
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<table>
<thead>
<tr>
<th>Credit points</th>
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<tbody>
<tr>
<td>10</td>
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<table>
<thead>
<tr>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>Admission to BEng</td>
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<table>
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<tr>
<th>Corequisites</th>
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<tr>
<th>Co-badged status</th>
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### 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](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

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1</td>
<td>20%</td>
<td>No</td>
<td>Monday Week 7 - 5pm</td>
</tr>
<tr>
<td>Assignment 2</td>
<td>20%</td>
<td>No</td>
<td>Monday Week 13 - 5pm</td>
</tr>
<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>Final Exam</td>
<td>20%</td>
<td>No</td>
<td>During University Exam Period</td>
</tr>
</tbody>
</table>

Assignment 1

Assessment Type: Problem set
Indicative Time on Task: 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: Problem set
Indicative Time on Task: 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 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.

**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 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

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

<table>
<thead>
<tr>
<th>Week Starting</th>
<th>Semester Week</th>
<th>Lecturer</th>
<th>Topic Areas</th>
<th>Comments / Assessment Notes</th>
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</thead>
<tbody>
<tr>
<td>22 February 1</td>
<td>1</td>
<td>James</td>
<td>Software Engineering Overview + Project Overview</td>
<td></td>
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<tr>
<td>01 March 2</td>
<td>2</td>
<td>James</td>
<td>SDLC + Software Processes</td>
<td></td>
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<tr>
<td>08 March 3</td>
<td>3</td>
<td>James</td>
<td>Agile Software Project Management</td>
<td></td>
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<tr>
<td>15 March 4</td>
<td>4</td>
<td>James</td>
<td>Version Control Systems and Approaches</td>
<td></td>
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<tr>
<td>22 March 5</td>
<td>5</td>
<td>James</td>
<td>Software Design Architecture Overview</td>
<td></td>
</tr>
<tr>
<td>29 March 6</td>
<td>6</td>
<td>James</td>
<td>Software Testing + Latest Trends</td>
<td>Interim Project Submission</td>
</tr>
</tbody>
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## 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](https://policies.mq.edu.au)
- [Academic Integrity Policy](https://policies.mq.edu.au)
- [Academic Progression Policy](https://policies.mq.edu.au)
- [Assessment Policy](https://policies.mq.edu.au)
- [Fitness to Practice Procedure](https://policies.mq.edu.au)
- [Assessment Procedure](https://policies.mq.edu.au)
- [Complaints Resolution Procedure for Students and Members of the Public](https://policies.mq.edu.au)
- [Special Consideration Policy](https://policies.mq.edu.au)

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) 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

**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.