# ENGINEERING PRACTICE

## Session 2, Weekday attendance, North Ryde 2021

*School of Engineering*

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**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 convenor 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

<table>
<thead>
<tr>
<th>Unit convenor and teaching staff</th>
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<tbody>
<tr>
<td><strong>Convenor</strong></td>
</tr>
<tr>
<td>Rex Di Bona</td>
</tr>
<tr>
<td><a href="mailto:rex.dibona@mq.edu.au">rex.dibona@mq.edu.au</a></td>
</tr>
<tr>
<td>Contact via Email</td>
</tr>
<tr>
<td>50 Waterloo Road</td>
</tr>
<tr>
<td>Appointment via email, Tue/Wed @ 44RW</td>
</tr>
</tbody>
</table>

| **Co-convenor**                   |
| Nicholas Tse                      |
| nicholas.tse@mq.edu.au           |
| Contact via Email                |
| 50 Waterloo Road                |
| Appointment via email, Tue/Wed @ 44RW |

| **Credit points**                |
| 10                               |

| **Prerequisites**                |
| (COMP115 or COMP1000) and (ENGG100 or ENGG1050) |

| **Corequisites**                 |
| CIVL2301 or (COMP247 or COMP2250) or (COMP225 or COMP2010) or (ELEC240 or ELEC2040) or (ELEC242 or ELEC2042) or (ELEC260 or MTRN2060) or (ELEC270 or ELEC2070) or (ELEC295 or ELCT2005) or (MECH203 or MECH2003) |

| **Co-badged status**             |

| **Unit description**             |
| The 4th SPINE unit aimed to develop professional, transferable and employability skills. The Unit consists of a series of online modules and integrated project-based learning activities. Students will be exposed to real engineering projects and be apply and integrate their learnt technical skills in resolving a real-world inspired engineering problem. The working environment will facilitate the development of transferable skills such as effective team working skills and various form of technical communication skills. Students are expected to apply systems thinking and design thinking in developing an innovative and practical engineering solution for the given problem. They will be expected to work alongside fellow senior students. |

[https://unitguides.mq.edu.au/unit_offerings/132529/unit_guide/print](https://unitguides.mq.edu.au/unit_offerings/132529/unit_guide/print)
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: Apply appropriate thinking strategies to achieve creative and innovative engineering solutions.
ULO2: Communicate technical information to a diverse range of audiences (including lay-people and experts in the field) using oral and written communication skills.
ULO3: Enumerate project parameters to effectively decompose complex engineering systems into subsystems such that they are objective and measurable.
ULO4: Work in a team and apply accountability strategies to ensure team objective is met.
ULO5: Apply rigour to the production of traceability documentation of the project.
ULO6: Demonstrate effective self-management ability and continual professional development.

General Assessment Information
Grading and passing requirement for unit
In order to pass this unit, a student must obtain a mark of 50 or more for the unit (i.e. obtain a passing grade P/ CR/ D/ HD).
For further details about grading, please refer to the policies and procedures section.

Hurdle Requirements
There will be a "Fitness to Practice (FTP)" hurdle requirement that students must meet in order to pass this unit. Any students who do not meet the professionalism required of the Unit will first be warned formally via email and an in-person meeting. This includes following the given lab safety requirements and adherence to COVID safety policy. For further details please refer to the policies and procedures section, specifically the Fitness to Practice Procedure.

Assessment Tasks

<table>
<thead>
<tr>
<th>Name</th>
<th>Weighting</th>
<th>Hurdle</th>
<th>Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness to Practice Hurdle</td>
<td>0%</td>
<td>Yes</td>
<td>End of Semester</td>
</tr>
<tr>
<td>Name</td>
<td>Weighting</td>
<td>Hurdle</td>
<td>Due</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------</td>
<td>--------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>A1 Online materials</td>
<td>20%</td>
<td>No</td>
<td>Refer to iLearn</td>
</tr>
<tr>
<td>A2. Reflective writing</td>
<td>10%</td>
<td>No</td>
<td>Week 7 and 13</td>
</tr>
<tr>
<td>A3. Portfolio</td>
<td>10%</td>
<td>No</td>
<td>Week 13</td>
</tr>
<tr>
<td>A5. Vertically Integrated Project</td>
<td>60%</td>
<td>No</td>
<td>refer to iLearn</td>
</tr>
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</table>

**Fitness to Practice Hurdle**

Assessment Type 1: Practice-based task  
Indicative Time on Task 2: 0 hours  
Due: End of Semester  
Weighting: 0%  
This is a hurdle assessment task (see assessment policy for more information on hurdle assessment tasks)

This non weighted hurdle requires students to demonstrate achievement and compliance with the Engineers Australia Stage 1 Competency. In particular, but not limited to Section 3: Professional and Personal Attributes. This is a "fitness to practice" demonstration task.

On successful completion you will be able to:  
- Demonstrate effective self-management ability and continual professional development.

**A1 Online materials**

Assessment Type 1: Quiz/Test  
Indicative Time on Task 2: 10 hours  
Due: Refer to iLearn  
Weighting: 20%

A range of topics delivered via podcasts, video recordings and other reading materials. Periodic online assessment around these topics. Material content will include but not limited to project management, team management, project organisation.

On successful completion you will be able to:  
- Apply appropriate thinking strategies to achieve creative and innovative engineering solutions.
- Enumerate project parameters to effectively decompose complex engineering systems into subsystems such that they are objective and measurable.
- Work in a team and apply accountability strategies to ensure team objective is met.
- Apply rigour to the production of traceability documentation of the project.
- Demonstrate effective self-management ability and continual professional development.

**A2. Reflective writing**

Assessment Type: Reflective Writing  
Indicative Time on Task: 5 hours  
Due: Week 7 and 13  
Weighting: 10%

Reflective writing on transferable skills learnt. There will be two required submission at two-time points in the semester. Refer to iLearn for more information.

On successful completion you will be able to:  
- Work in a team and apply accountability strategies to ensure team objective is met.  
- Demonstrate effective self-management ability and continual professional development.

**A3. Portfolio**

Assessment Type: Portfolio  
Indicative Time on Task: 10 hours  
Due: Week 13  
Weighting: 10%

Continue professional development. A core part of the SPINE unit where students are to continually improve on their Portfolio development.

On successful completion you will be able to:  
- Demonstrate effective self-management ability and continual professional development.

**A5. Vertically Integrated Project**

Assessment Type: Practice-based task  
Indicative Time on Task: 45 hours  
Due: refer to iLearn  
Weighting: 60%
Working collectively as a team of engineers (different disciplines and years), students are to design, conceive, document, implement and communicate a detailed plan to a multi-disciplinary real-world inspired engineering problem. The work will have multiple subcomponents and milestone and will required teams to peer evaluate. More information on iLearn.

On successful completion you will be able to:

- Apply appropriate thinking strategies to achieve creative and innovative engineering solutions.
- Communicate technical information to a diverse range of audiences (including lay-people and experts in the field) using oral and written communication skills.
- Enumerate project parameters to effectively decompose complex engineering systems into subsystems such that they are objective and measurable.
- Work in a team and apply accountability strategies to ensure team objective is met.
- Apply rigour to the production of traceability documentation of the project.

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**

Refer to iLearn for more details.

**Unit Schedule**

Refer to iLearn for more details.

**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](#)
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

**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
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
In response to LEU and other students feedback from previous years, there has been a slight change to the due dates and workload requirement of the unit.

Also, the Engineering challenge was changed to ensure authentic projects are used in running this unit.