



ENGG3000

Engineering Project Practice

Session 2, Weekday attendance, North Ryde 2021

School of Engineering

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	7
<u>Unit Schedule</u>	7
<u>Policies and Procedures</u>	7
<u>Changes from Previous Offering</u>	8

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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

Unit convenor and teaching staff

Convenor

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Co-convenor

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Credit points

10

Prerequisites

((ENGG2000 or ENGG200) and (ENGG450 or ENGG2050)) or admission to MEngElecEng or MEngEnvSafetyEng or MEngMechEng or MEngNetTeleEng

Corequisites

Co-badged status

Unit description

The 6th 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 able to demonstrate structured problem-solving skills and learnt technical knowledge from preceding units. Students will be expected to apply systems thinking in a real-world inspired engineering project. The students will be expected to apply appropriate management and leadership skills to ensure project success is achieved. Students will demonstrate proficiency in technical communication for their engineering design and solution.

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: Demonstrate systems thinking and holistic thinking with an emphasis on trade-off analysis in all decision-making process.

ULO2: Demonstrate effective communication skill of technical and non-technical knowledge through a range of mediums such as technical documents and elevator pitch.

ULO3: Provide analysis and simulation to optimise the system based on enumerated parameters.

ULO4: Demonstrate leadership and management skills to achieve team deliverables.

ULO5: Ensure project continuation through the synthesis of project documentation and handover documents.

ULO6: Explain and discuss the social and technical impact of engineering and demonstrate 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

Name	Weighting	Hurdle	Due
<u>Fitness to Practice Hurdle</u>	0%	Yes	End of Semester
<u>A1 Online materials</u>	15%	No	Refer to iLearn
<u>A2. Reflective writing</u>	10%	No	Week 7 and 13
<u>A3. Portfolio</u>	5%	No	Week 13

Name	Weighting	Hurdle	Due
A4. Sociotechnical Perspective Essay	10%	No	Week 9
A5. Vertically Integrated Project	60%	No	refer to iLearn

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 leadership and management skills to achieve team deliverables.
- Explain and discuss the social and technical impact of engineering and demonstrate continual professional development.

A1 Online materials

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 10 hours

Due: **Refer to iLearn**

Weighting: **15%**

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:

- Demonstrate systems thinking and holistic thinking with an emphasis on trade-off analysis in all decision-making process.

- Provide analysis and simulation to optimise the system based on enumerated parameters.
- Demonstrate leadership and management skills to achieve team deliverables.
- Ensure project continuation through the synthesis of project documentation and handover documents.
- Explain and discuss the social and technical impact of engineering and demonstrate continual professional development.

A2. Reflective writing

Assessment Type ¹: Reflective Writing

Indicative Time on Task ²: 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:

- Demonstrate leadership and management skills to achieve team deliverables.
- Explain and discuss the social and technical impact of engineering and demonstrate continual professional development.

A3. Portfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 2 hours

Due: **Week 13**

Weighting: **5%**

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:

- Explain and discuss the social and technical impact of engineering and demonstrate continual professional development.

A4. Sociotechnical Perspective Essay

Assessment Type ¹: Essay

Indicative Time on Task ²: 15 hours

Due: **Week 9**

Weighting: **10%**

A sociotechnical Perspective Essay on a chosen engineering topic. More information on iLearn.

On successful completion you will be able to:

- Explain and discuss the social and technical impact of engineering and demonstrate continual professional development.

A5. Vertically Integrated Project

Assessment Type ¹: Practice-based task

Indicative Time on Task ²: 20 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:

- Demonstrate systems thinking and holistic thinking with an emphasis on trade-off analysis in all decision-making process.
- Demonstrate effective communication skill of technical and non-technical knowledge through a range of mediums such as technical documents and elevator pitch.
- Provide analysis and simulation to optimise the system based on enumerated parameters.
- Demonstrate leadership and management skills to achieve team deliverables.
- Ensure project continuation through the synthesis of project documentation and handover documents.

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://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>). 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

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.