ENGG3000

Engineering Project Practice

Session 2, Special circumstance 2020

School of Engineering

Contents

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

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

Notice

As part of Phase 3 of our return to campus plan, most units will now run tutorials, seminars and ot her small group learning activities on campus for the second half-year, while keeping an online ver sion available for those students unable to return or those who choose to continue their studies onli ne.

To check the availability of face-to-face and onlin e activities for your unit, please go to timetable vi ewer. To check detailed information on unit asses sments visit your unit's iLearn space or consult yo ur unit convenor.

General Information

Unit convenor and teaching staff
Convenor
Nicholas Tse
nicholas.tse@mq.edu.au
Contact via via email
50 Waterloo Road
Appointment via email or Tue/Wed

Convenor
Rex Di Bona
rex.dibona@mq.edu.au
Contact via via email
50 Waterloo Road
Appointment via email or Tue/Wed

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://www.mq.edu.au/study/calendar-of-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. For further details please refer to the policies and procedures section, specifically the Fitness to Practice Procedure.

Assessment Tasks

Name	Weighting	Hurdle	Due
A1 Online materials	15%	No	Week 2, 5 and 12
A2. Reflective writing	10%	No	Week 7 and 13
A3. Portfolio	5%	No	Week 13
A4. Sociotechnical Perspective Essay	10%	No	Week 9

Name	Weighting	Hurdle	Due
A5. Vertically Integrated Project	60%	No	Refer to iLearn

A1 Online materials

Assessment Type [1]: Quiz/Test
Indicative Time on Task [2]: 10 hours
Due: **Week 2, 5 and 12**
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 Essayessay 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 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

Refer to iLearn for more details.

Unit Schedule

Refer to iLearn and lecture notes for the unit schedule.

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

- 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 *(**Note:** The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies 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/study/getting-started/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 Services and 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.

Student Enquiries

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

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.