



ENGG8000

Professional Practice

Session 1, In person-scheduled-weekday, North Ryde 2025

School of Engineering

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General Information

Unit convenor and teaching staff

Unit convenor

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Arrangement by email

Lecturer

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Credit points

10

Prerequisites

Corequisites

Co-badged status

Unit description

In this professional practice unit students will work as teams of consulting engineers to provide an engineering solution to a real need or problem. The teams may be multidisciplinary, as required by the nature of the project, and will source valuable exposure to an in-depth understanding of the problem, the relevant industry, and the socio-technical and other contexts in which the need or problem arose, and the engineered system or solution required. The teams will be expected to organise, plan, and perform all other tasks associated with good engineering practice, including discussion and reflection around the engineering problem and the engineering process. Individual and collective technical and professional competencies will be demonstrated through the production of a substantial report and presentation for consideration. An appreciation of the various contexts and factors impacting upon engineering practice will be developed.

Learning in this unit enhances student understanding of global challenges identified by the United Nations Sustainable Development Goals ([UNSDGs](#)) Quality Education; Industry, Innovation and Infrastructure; Sustainable Cities and Communities

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 proficiency in teamwork as professional engineers and objectively evaluate the performance of the team and of your individual peers.

ULO2: Show excellent communication skills to communicate engineering concepts in multiple modes to a range of audiences.

ULO3: Deliver a professional engineering report with a high ethical standard, detailing the problem to be solved, the proposed problem solution, and critically evaluate the solution and the reasons why the solution was chosen or recommended.

ULO4: Examine and reflect on the socio-technical and other contexts in which engineering is practiced.

ULO5: Exercise advanced professional and self reflective practice.

General Assessment Information

Requirements to pass the unit

To pass this unit you need to achieve a total mark equal to or greater than 50% across all assessments.

Attendance and participation

We strongly encourage all students to actively participate in all learning activities. Regular engagement is crucial for your success in this unit, as these activities provide opportunities to deepen your understanding of the material, collaborate with peers, and receive valuable feedback from instructors, to assist in completing the unit assessments. Your active participation not only enhances your own learning experience but also contributes to a vibrant and dynamic learning environment for everyone.

Late Assessment Submission and Penalties

Late Submission is not accepted in this unit unless a Special Consideration has been submitted and approved.

Special Considerations

The Special Consideration Policy aims to support students who have been impacted by short-term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through <https://connect.mq.edu.au>.

Descriptions of Assessment Activities

Assessment Criteria (presentation and report): rubrics

Submission of Assessments: All assignments and reports must be submitted electronically through iLearn (in pdf format). Submissions will undergo plagiarism checkers using the Turnitin software. For more details on the policies of academic penalties relating to academic honesty, please refer to the policies and procedures section below. Resubmission of any assessment task is not allowed under any circumstances.

Marks and Feedback will be provided with expected turn-around times of 1-2 weeks.

Assessment Tasks

Name	Weighting	Hurdle	Due
Project report	40%	No	Week 8 (Sunday) & Week 13 (Sunday)
Presentation	30%	No	Week 7 & Week 12 (SGTA time)
In session quizzes	30%	No	Week 7 (10 April 2025) & Week 12 (29 May 2025)

Project report

Assessment Type ¹: Report

Indicative Time on Task ²: 45 hours

Due: **Week 8 (Sunday) & Week 13 (Sunday)**

Weighting: **40%**

Groups will produce professional engineering reports on the engineering solution to the given problem.

On successful completion you will be able to:

- Demonstrate proficiency in teamwork as professional engineers and objectively evaluate the performance of the team and of your individual peers.
- Show excellent communication skills to communicate engineering concepts in multiple modes to a range of audiences.
- Deliver a professional engineering report with a high ethical standard, detailing the problem to be solved, the proposed problem solution, and critically evaluate the solution and the reasons why the solution was chosen or recommended.
- Examine and reflect on the socio-technical and other contexts in which engineering is practiced.

- Exercise advanced professional and self reflective practice.

Presentation

Assessment Type ¹: Presentation

Indicative Time on Task ²: 20 hours

Due: **Week 7 & Week 12 (SGTA time)**

Weighting: **30%**

Each team will give presentations on the given problem.

On successful completion you will be able to:

- Demonstrate proficiency in teamwork as professional engineers and objectively evaluate the performance of the team and of your individual peers.
- Show excellent communication skills to communicate engineering concepts in multiple modes to a range of audiences.
- Examine and reflect on the socio-technical and other contexts in which engineering is practiced.
- Exercise advanced professional and self reflective practice.

In session quizzes

Assessment Type ¹: Quiz/Test

Indicative Time on Task ²: 22 hours

Due: **Week 7 (10 April 2025) & Week 12 (29 May 2025)**

Weighting: **30%**

A series of small quizzes to reflect on the foundation scaffolding learning materials.

On successful completion you will be able to:

- Examine and reflect on the socio-technical and other contexts in which engineering is practiced.
- Exercise advanced professional and self reflective practice.

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

Week 1 classes

Lecture and SGTA activities will commence in week 1. All teaching activities will be conducted on campus.

Methods of Communication

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

Formal notification of assessment tasks, grading rubrics, and due dates will be posted on iLearn.

Resources

Lecture videos are pre-recorded and uploaded on iLearn.

Unit Schedule

Please refer to iLearn site for details.

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 connect.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 Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), 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/.

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

To enable students more time to focus on learning, understanding and reflecting on the content of our unit we have revised the assessment structure as follows.

There are now only three assessments: quiz, report and presentation.

Although no marks are associated with attendance, all activities provide you with key content designed to help you understand content and complete the assessments.

Engineers Australia Competency Mapping

EA Competency Standard		Unit Learning Outcomes
Knowledge and Skill Base	1.1 Comprehensive, theory-based understanding of the underpinning fundamentals applicable to the engineering discipline.	
	1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing.	UL03
	1.3 In-depth understanding of specialist bodies of knowledge	UL03

	1.4 Discernment of knowledge development and research directions	
	1.5 Knowledge of engineering design practice	UL03
	1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice.	
Engineering Application Ability	2.1 Application of established engineering methods to complex problem solving	UL03
	2.2 Fluent application of engineering techniques, tools and resources.	UL03
	2.3 Application of systematic engineering synthesis and design processes.	UL04
	2.4 Application of systematic approaches to the conduct and management of engineering projects.	UL04
Professional and Personal Attributes	3.1 Ethical conduct and professional accountability.	UL03
	3.2 Effective oral and written communication in professional and lay domains.	UL02
	3.3 Creative, innovative and pro-active demeanour.	UL03
	3.4 Professional use and management of information.	UL03
	3.5 Orderly management of self, and professional conduct.	UL05
	3.6 Effective team membership and team leadership	UL01

Unit information based on version 2025.03 of the [Handbook](#)