

## In Progress

Please note that this Unit Profile is still in progress. The content below is subject to change.



# **ENEG28001 *Australian Engineering Practice***

## **Term 2 - 2024**

Profile information current as at 20/05/2024 09:19 am

All details in this unit profile for ENEG28001 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

## General Information

### Overview

In this unit, you will further develop your professional engineering skills necessary to practice as a graduate engineer in Australia. You will learn Engineers Australia's prescribed competency standards, codes of practice and ethics, and the roles and responsibilities of a professional engineer. You will apply your knowledge to conceive, develop and deliver sustainable solutions to complex engineering problems, autonomously and as part of a team. You will use advanced search methods to retrieve and critically assess scientific and technical information and apply it to synthesise the conduct and management of engineering projects. You will develop your communication skills, including technical writing and presentations based on effective research, paraphrasing, referencing, and reviewing published information. As a small team, you will prepare a scope for an investigation to demonstrate an understanding of the tasks involved in an Australian engineering feasibility investigation. You will enhance your awareness of ways to contribute to the United Nations Sustainable Development Goals and First Nation perspective in engineering practice. You will apply your engineering knowledge and skills to enhance welfare, health, and safety, with the minimal use of natural resources and paying attention to the environment and the sustainability of the resources.

### Details

Career Level: *Postgraduate*

Unit Level: *Level 8*

Credit Points: 6

Student Contribution Band: 2

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

### Offerings For Term 2 - 2024

- Melbourne
- Online
- Rockhampton

### Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

### Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

## Class and Assessment Overview

### Recommended Student Time Commitment

Each 6-credit Postgraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

### Class Timetable

#### [Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

#### [Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

#### 1. **Self assessment**

Weighting: 20%

#### 2. **Written Assessment**

Weighting: 30%

#### 3. **Group Work**

Weighting: 30%

#### 4. **Presentation**

Weighting: 20%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Unit Learning Outcomes

### On successful completion of this unit, you will be able to:

1. Reflect on the roles, responsibilities and attributes of a professional engineer
2. Develop sustainable solutions to complex engineering problems from socio-technical and environmental perspectives
3. Retrieve and manage technical information and critically assess its accuracy, reliability and authenticity
4. Apply systematic approaches to the conduct and management of engineering projects autonomously and as part of multidisciplinary and multicultural teams
5. Develop high quality engineering reports using different communication media and share them verbally and in written form
6. Demonstrate ethical practice, accountability, and a commitment to lifelong learning, with specific reference to the Engineers Australia Code of Ethics
7. Integrate First Nation knowledge, culture, and the United Nations Sustainable Development Goals into engineering practice.

Learning Outcomes for this unit are linked with the Engineers Australia Stage 1 Competency Standards for Professional Engineers in the areas of 1. Knowledge and Skills Base, 2. Engineering Application Ability and 3. Professional and Personal Attributes at the following levels:

#### Intermediate

- 1.4 Discernment of knowledge development and research directions within the engineering discipline. (LO: 2I)
- 1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline. (LO: 2I)
- 1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the specific discipline. (LO: 1I 6I)
- 2.1 Application of established engineering methods to complex engineering problem solving. (LO: 2I 3I)
- 2.2 Fluent application of engineering techniques, tools and resources. (LO: 3I 4I)
- 2.4 Application of systematic approaches to the conduct and management of engineering projects. (LO: 2I 4I)
- 3.1 Ethical conduct and professional accountability. (LO: 1I 6I)
- 3.2 Effective oral and written communication in professional and lay domains. (LO: 5I )
- 3.3 Creative, innovative and proactive demeanour. (LO: 2I)
- 3.4 Professional use and management of information. (LO: 3I 5I)
- 3.5 Orderly management of self and professional conduct. (LO: 6I)
- 3.6 Effective team membership and team leadership. (LO: 4I)

#### Advanced

- 1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline. (LO: 2A 4I)

*Note: LO refers to the Learning Outcome number(s) that link to the competency and the levels: N - Introductory, I - Intermediate and A - Advanced.*

Refer to the Engineering Postgraduate Units Moodle site for further information on Engineers Australia's Stage 1 Competency Standard for Professional Engineers and course-level mapping information

<https://moodle.cqu.edu.au/course/view.php?id=11382>

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Written Assessment - 20%	•					•	
2 - Written Assessment - 60%		•	•	•	•	•	•
3 - Presentation - 20%				•	•		•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Knowledge		◦	◦				
2 - Communication			◦		◦		
3 - Cognitive, technical and creative skills		◦		◦			
4 - Research			◦				
5 - Self-management		◦					
6 - Ethical and Professional Responsibility						◦	
7 - Leadership				◦			
8 - Aboriginal and Torres Strait Islander Cultures							◦

## Textbooks and Resources

Information for Textbooks and Resources has not been released yet.

This information will be available on Monday 17 June 2024

## Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.