### In Progress

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



Profile information current as at 23/01/2025 01:30 pm

All details in this unit profile for ENAG12002 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 apply the knowledge and skills you have developed throughout your Associate Degree to a capstone project. You will manage the project, identify and apply required technical knowledge, develop a project problem definition from a loosely formed client brief and produce detailed drawings and documentation. You will also review the conduct and management of engineering enterprises based on personal work experience and reflect on the engineering design process and project management and their role in it. You will operate in an ethical manner, communicate effectively, and provide evidence of professional conduct and a commitment to lifelong learning. Note: You may make this project part of your compulsory minimum of six weeks of work experience required before graduation.

### **Details**

Career Level: Undergraduate

Unit Level: Level 2 Credit Points: 12

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.25

## Pre-requisites or Co-requisites

Students must have completed 72 credit points.

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 <a href="Assessment Policy and Procedure (Higher Education Coursework)">Assessment Policy and Procedure (Higher Education Coursework)</a>.

## Offerings For Term 1 - 2025

Online

## 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 12-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 25 hours of study per week, making a total of 300 hours for the unit.

## Class Timetable

#### **Regional Campuses**

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

#### **Metropolitan Campuses**

Adelaide, Brisbane, Melbourne, Perth, Sydney

### Assessment Overview

## **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 <u>University's Grades and Results Policy</u> 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.

# Previous Student Feedback

## Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

### Feedback from In class discussion

### **Feedback**

Individual discussions on the potential project ideas at the start of the term helped develop the project.

### Recommendation

This practice should be continued.

### Feedback from In class discussion

#### Feedback

More resources for literature review and methodology development will be helpful.

#### Recommendation

The next delivery should provide more resources for the literature review and methodology development.

## Feedback from In class discussion

### **Feedback**

Assessments 1 and 2 helped for the gradual development of the project report.

### Recommendation

This practice should be continued.

## **Unit Learning Outcomes**

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

- 1. Apply and reflect on Engineers Australia's Stage One Competencies for Engineering Associates to the planning and implementation phases of engineering projects
- 2. Prepare a project scope that includes a project definition, identification of project stakeholders and expected milestones and deliverables
- 3. Research critical areas of your project and identify the tasks required for the implementation phases, including the application of appropriate technical capability developed in preceding units of study
- 4. Implement the project plan prepared in the planning phase in consultation with and guidance from your project adviser(s)
- 5. Prepare professional project documents that convey the processes and outcomes of the project
- 6. Communicate your project outcomes to project adviser(s), other stakeholders, and the wider community.

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

#### Intermediate

- 1.2 Procedural-level understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the practice area. (LO: 31 51)
- 1.4 Discernment of engineering developments within the practice area. (LO: 2I 3I 4I 5I)
- 1.1 Descriptive, formula-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the practice area. (LO: 1A 3A)
- 1.3 In-depth practical knowledge and skills within specialist sub-disciplines of the practice area. (LO: 2A 3A 4A 5A)
- 1.5 Knowledge of engineering design practice and contextual factors impacting the practice area. (LO: 2A 3I 4I)
- 1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the area of practice. (LO: 2A 3I 4I 5I)
- 2.1 Application of established technical and practical methods to the solution of well-defined engineering problems. (LO: 1A 3A 4A)
- 2.2 Application of technical and practical techniques, tools and resources to well-defined engineering problems. (LO: 1A 3I 4A)
- 2.3 Application of systematic design processes to well-defined engineering problems. (LO: 1A 4I)
- 2.4 Application of systematic project management processes. (LO: 1A 2A 3A 4A)
- 3.1 Ethical conduct and professional accountability. (LO: 1A)
- 3.2 Effective oral and written communication in professional and lay domains. (LO: 1A 2A 5A 6A)
- 3.3 Creative, innovative and pro-active demeanour. (LO: 1A)
- 3.4 Professional use and management of information. (LO: 1A 4A)
- 3.5 Orderly management of self, and professional conduct. (LO: 1A 4A)
- 3.6 Effective team membership and team leadership. (LO: 1A 2I 4I)

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

Refer to the Engineering Undergraduate Course Moodle site for further information on the Engineers Australia's Stage 1 Competency Standard for Professional Engineers and course level mapping information <a href="https://moodle.cqu.edu.au/course/view.php?id=1511">https://moodle.cqu.edu.au/course/view.php?id=1511</a>

## Alignment of Learning Outcomes, Assessment and Graduate Attributes Introductory Intermediate Graduate Professional Advanced Level Level Level Level Level Level Alignment of Assessment Tasks to Learning Outcomes **Assessment Tasks Learning Outcomes** 1 2 3 4 5 6 1 - Communication 2 - Problem Solving 3 - Critical Thinking 4 - Information Literacy 5 - Team Work 6 - Information Technology Competence 7 - Cross Cultural Competence 8 - Ethical practice 9 - Social Innovation 10 - 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 February 2025

## **Academic Integrity Statement**

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.