

In Progress

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



ENEG14003 *Engineering Honours Project* ***Planning*** **Term 2 - 2024**

Profile information current as at 19/05/2024 04:00 am

All details in this unit profile for ENEG14003 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

As a student in the final year of your Bachelor of Engineering (Honours) course, you will work independently to plan a project that allows you to demonstrate technical and professional capabilities (Engineers Australia's Stage One Competencies) expected of graduating professional engineers. You will conduct research, demonstrate critical thinking, and document sound analysis, decision-making, and judgment to support your project. You will work and learn autonomously, prepare and adhere to work and reporting schedules, communicate progress, and prepare formal and informal project documents. You will define and scope your project, apply technical knowledge, assess safety and risks, and prepare a proposal and plan for implementing the project in the following implementation unit. Note: Before enrolment can be accepted, you must confirm with the Unit Coordinator that you have identified a suitable project, obtained an academic adviser, and have successfully completed all nominal prior units in the course.

Details

Career Level: *Undergraduate*

Unit Level: *Level 4*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

144 unit credits AND {pre-requisite of ENEC14016 or ENEC14017 or ENEC14014 or ENEE14006 or ENEE14007 or ENEE14005 or ENEM14016 or ENEM14015 or ENEM14014 or ENEX13001 or ENEX14001}

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

- Bundaberg
- Cairns
- Gladstone
- Mackay
- 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 Undergraduate 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

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](#).

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 Class feedback and UC reflections

Feedback

Students appreciate the evening weekly Zoom open discussion sessions.

Recommendation

Continue to offer weekly evening Zoom sessions combined with thesis planning and implementation students to create a supportive environment for delivering the honours projects.

Feedback from UC Reflections

Feedback

Strengthen student self-assessment of project alignment to the UN Sustainable Development Goals.

Recommendation

Revise the marking rubric to encourage students to align their project to specific targets within the UN Sustainable Development Goals Framework.

Feedback from Student Evaluations

Feedback

Students would like more timely feedback to facilitate greater project improvements

Recommendation

Continue to remind Academic Advisors to return feedback within two weeks. Also, encourage staff to use online feedback forms for presentations to provide rapid feedback.

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 Professional Engineers with respect 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 by evaluating and extracting information from key reputable sources and relevant authorities
4. Identify the tasks required for the implementation phases, including the application of appropriate technical capability developed in preceding units of study, and integration with new capabilities necessary to form a comprehensive project plan
5. Prepare a project proposal that justifies the continuation of the project into the implementation phases.

The 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 Skill Base, 2. Engineering Application Ability and 3. Professional and Personal Attributes at the following levels:

Advanced

1.1 Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline. (LO: 1A 2A 3A 4A 5A)

1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline. (LO: 1A 2A 3A 4A 5A)

1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline. (LO: 1A 2A 3A 4A 5A)

1.4 Discernment of knowledge development and research directions within the engineering discipline. (LO: 1A 2A 3A 4A 5A)

1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline. (LO: 1A 2A 3A 4A 5A)

1.6 Understanding of the scope, principles, norms, accountabilities, and bounds of sustainable engineering practice in the specific discipline. (LO: 1A 2A 3A 4A 5A)

2.1 Application of established engineering methods to complex engineering problem solving. (LO: 1A 2A 3A 4A 5A)

2.2 Fluent application of engineering techniques, tools, and resources. (LO: 1A 2A 3A 4A 5A)

2.3 Application of systematic engineering synthesis and design processes. (LO: 1A 2A 3A 4A 5A)

2.4 Application of systematic approaches to the conduct and management of engineering projects. (LO: 1A 2A 3A 4A 5A)

3.1 Ethical conduct and professional accountability. (LO: 1A 2A 5A)

3.2 Effective oral and written communication in professional and lay domains. (LO: 1A 2A 3A 4A 5A)

3.3 Creative, innovative, and pro-active demeanour. (LO: 1A 2A 3A 4A 5A)

3.4 Professional use and management of information. (LO: 1A 2A 3A 4A 5A)

3.5 Orderly management of self, and professional conduct. (LO: 1A 5A)

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

<https://moodle.cqu.edu.au/course/view.php?id=1511>



Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
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 June 2024

Academic Integrity Statement

Information for Academic Integrity Statement has not been released yet.

This unit profile has not yet been finalised.