ENEG14005 *Engineering Honours Project Implementation*

Term 2 - 2024

Profile information current as at 13/05/2024 12:08 am

Overview

As a student in the final year of your Bachelor of Engineering course, you will work independently to manage and implement a project (planned in ENEG14003) that allows you to demonstrate professional capabilities expected of graduating professional engineers. You will work and learn autonomously, communicate progress and prepare reports and presentations. You will conduct research to support your project decision-making, and you are required to demonstrate critical thinking and document sound analysis and judgement in project working documents and final reporting. You will solve technical problems that arise and evaluate project processes, outcomes and related learning experiences, and you will prepare a formal report, poster and project presentation. Note that if you completed the prerequisite Planning unit more than two terms ago then you need to check with your academic adviser to see if the project is still available.

Details

Career Level: *Undergraduate*
Unit Level: *Level 4*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites

Prerequisite: ENEG14003 Engineering Honours Project Planning
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
- Mixed Mode
- 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).

Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:
Click here to see your [Residential School Timetable](#).

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 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.

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.

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 to the planning and implementation phases of engineering projects
2. Implement the project plan prepared in the Planning unit in consultation with and guidance from your project adviser(s)
3. Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project
4. Communicate preliminary results to project adviser(s) promptly to solicit timely and constructive feedback
5. Prepare professional project documents that convey the processes and outcomes of your 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 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 6A) 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 6A) 1.3 In-depth understanding of specialist bodies of knowledge within the engineering discipline. (LO: 1A 2A 3A 4A 5A 6A) 1.4 Discernment of knowledge development and research directions within the engineering discipline. (LO: 1A 2A 3A 4A 5A 6A) 1.5 Knowledge of engineering design practice and contextual factors impacting the engineering discipline. (LO: 1A 2A 3A 4A 5A 6A) 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 6A) 2.1 Application of established engineering methods to complex engineering problem solving. (LO: 1A 2A 3A 4A 5A 6A) 2.2 Fluent application of engineering techniques, tools and resources. (LO: 1A 2A 3A 4A 5A 6A) 2.3 Application of systematic engineering synthesis and design processes. (LO: 1A 2A 3A 4A 5A 6A) 2.4 Application of systematic approaches to the conduct and management of engineering projects. (LO: 1A 2A 3A 4A 5A 6A) 3.1 Ethical conduct and professional accountability. (LO: 1A 2A 3A 6A) 3.2 Effective oral and written communication in professional and lay domains. (LO: 1A 2A 3A 4A 5A 6A) 3.3 Creative, innovative and pro-active demeanour. (LO: 1A 2A 3A 4A 5A 6A) 3.4 Professional use and management of information. (LO: 1A 2A 3A 4A 5A 6A) 3.5 Orderly management of self, and professional conduct. (LO: 1A 2A 3A 4A 5A 6A) 3.6 Effective team membership and team leadership. (LO: 1A 2A 3A 6A)

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

—	N/A Level	∘	Introductory Level	•	Intermediate Level	•	Graduate Level	∘	Professional Level	∘	Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes								2	3	4	5	6
			1										
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.