ENEP12008 *Engineering Leadership*
Term 1 - 2023

Profile information current as at 09/07/2025 02:47 am

All details in this unit profile for ENEP12008 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 course, you will identify and analyse leadership and engineering management techniques applied within industry-based teams, and generate a personal vision for your leadership style. You will also document safety and environmental management systems applied in engineering workplaces, with a focus on cultural aspects. You will examine ethical principles, codes of ethics and apply approaches to ethical decision making. You will develop a three-year career plan outlining professional, technical, and personal aspects of career development. In preparation for this unit, it is strongly recommended that you have undertaken industry practice experience in a workplace, either via Industry Practice unit(s) or vacation employment.

Details
Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
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 1 - 2023

- 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

1. **Report**
Weighting: 30%
2. **Case Study**
Weighting: 30%
3. **Portfolio**
Weighting: 40%

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 SUTE Comments

Feedback
Marking rubrics for each assessment was hard to locate as they were not given with each assessment.

Recommendation
Marking rubrics should be included in the assessment guidelines.

Feedback from SUTE Comments

Feedback
Some unit content needs to be updated to reflect the changes in technology used at workplaces.

Recommendation
Unit content should be reviewed and updated as required to reflect contemporary engineering practices.

Feedback from SUTE Comments

Feedback
Unit requirements were not clear.

Recommendation
Week one tutorial should focus on the unit requirements.

Feedback from Unit Coordinator Reflections

Feedback
Some topics are relevant to leadership in contemporary engineering organisations.

Recommendation
Topics of project leadership and using leadership as a driver of sustainability should be added to the unit content.

Unit Learning Outcomes

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

1. Identify and analyse leadership and engineering management techniques
2. Generate a personal leadership vision
3. Document safety and environmental management systems applied in engineering workplaces, with a focus on cultural aspects
4. Apply professional judgment, standard approaches, and codes of ethics to decision making within a business environment
5. Develop a three-year career plan outlining professional, technical, and personal aspects of career development.

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:

Intermediate

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

2.1 Application of established engineering methods to complex engineering problem solving.

(LO: 1I 3I 5I)

2.3 Application of systematic engineering synthesis and design processes. (LO: 5I)

3.4 Professional use and management of information. (LO: 1I 3I)

3.6 Effective team membership and team leadership. (LO: 2I 3I)

Advanced

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

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

3.1 Ethical conduct and professional accountability. (LO: 2I 4A)

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

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

3.5 Orderly management of self, and professional conduct. (LO: 2A 4A 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

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

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Report - 30%	•		•		
2 - Case Study - 30%				•	
3 - Portfolio - 40%		•			•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	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

Textbooks

There are no required textbooks.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: Harvard (author-date)
For further information, see the Assessment Tasks.

Teaching Contacts

Aruna Jayasuriya Unit Coordinator
a.jayasuriya@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Engineering Management		

Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Engineering Management Commence development of Industry Report.		

Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Leadership Continue development of Industry Report.		

Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Safety Management Continue development of Industry Report.		

Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Guest Lectures Continue development of Industry Report.		

Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Ethics Complete development of Industry Report		**Industry Report** Due: Week 6 Friday (21 Apr 2023) 11:59 pm AEST

Week 7 - 24 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Environmental Management Commence development of Ethics Case Study.		

Week 8 - 01 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Guest Lectures Continue development of Ethics Case Study.		

Week 9 - 08 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Professional Development Complete development of Ethics Case Study.		**Ethics Case Study** Due: Week 9 Friday (12 May 2023) 11:59 pm AEST

Week 10 - 15 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Career Planning Commence development of Career Plan Portfolio.		

Week 11 - 22 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Review Continue development of Career Plan Portfolio.		

Week 12 - 29 May 2023

Module/Topic	Chapter	Events and Submissions/Topic
Review Complete development of Career Plan Portfolio.		**Career Plan Portfolio** Due: Week 12 Friday (2 June 2023) 11:59 pm AEST

Review/Exam Week - 05 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 12 Jun 2023

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Industry Report

Assessment Type
Report

Task Description
As you have learned in the course material, Engineering Management involves the application of general management functions within engineering teams. In addition, amongst the four well-known management functions, you are likely to be exposed to the Controlling function in a Graduate Engineer role.
In this assessment, you will review an industry-based engineering process and document how management control

techniques are embedded within the process to ensure the desired results are achieved.
Further details of this assessment task are available on the Moodle site.

Assessment Due Date
Week 6 Friday (21 Apr 2023) 11:59 pm AEST

Return Date to Students

Within two weeks of the submission deadline

Weighting
30%

Minimum mark or grade
50%

Assessment Criteria
Describe Management Processes
Analyse the Relationship Between Standards, Measures and Feedback
Identify and Describe Safety Processes
Relate Leadership and Culture to Performance
Describe and evaluate leadership skills
Accuracy and Clarity of the Report
Appropriate use of Sentence Structure and Grammar

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Identify and analyse leadership and engineering management techniques
- Document safety and environmental management systems applied in engineering workplaces, with a focus on cultural aspects

2 Ethics Case Study

Assessment Type
Case Study

Task Description
Your second assessment item involves analysis and application of decision-making processes to case studies related to engineering ethics, responding to the ethical issues raised via a Case Study Report.
Your assessment task involves selecting two (2) of the supplied Case Studies and documenting how you would approach an ethical issue identified in the case. You will then apply a structured decision-making process to reach a decision regarding your issue. Your decisions should be supported at each stage by referencing appropriate external standards, laws, guidelines and codes, or by describing your personal beliefs and opinions.
Further details of this assessment task are available on the Moodle site.

Assessment Due Date
Week 9 Friday (12 May 2023) 11:59 pm AEST

Return Date to Students

Within two weeks of the submission deadline

Weighting
30%

Minimum mark or grade
50%

Assessment Criteria
Identify and describe ethical issues
Analyse relevant legal, technical and professional issues
Ability to provide reasonable decision options
Express ethical views in a clear and appropriate manner

Consistently apply a decision-making framework
Accuracy and Clarity of the Report
Appropriate use of Sentence Structure and Grammar

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Apply professional judgment, standard approaches, and codes of ethics to decision making within a business environment

3 Career Plan Portfolio

Assessment Type
Portfolio

Task Description
The final assessment item of this unit involves the development of a career plan, presented as a portfolio and consisting of your leadership vision, technical and professional development plans, and a tabular summary of your overall career plan.
Further details of this assessment task are available on the Moodle site.

Assessment Due Date
Week 12 Friday (2 June 2023) 11:59 pm AEST

Return Date to Students

Within two weeks of the submission deadline

Weighting
40%

Minimum mark or grade
50%

Assessment Criteria
Analyse Leadership Skills
Express an achievable vision and mission
Conduct research into a technical specialisation
Self-assess and perform a skills gap analysis
Articulate feasible (SMART) technical development actions
Articulate feasible (SMART) professional development actions
Summarise plans and actions
Accuracy and Clarity of the Report

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Generate a personal leadership vision
- Develop a three-year career plan outlining professional, technical, and personal aspects of career development.

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the **Student Academic Integrity Policy and Procedure**. This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?
A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?
A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?
For academic advice and guidance, the Academic Learning Centre (ALC) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?

Be Honest
If your assessment task is done by someone else, it would be dishonest of you to claim it as your own

Seek Help
If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)

Produce Original Work
Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem