



ENEP12007 Engineering Business Fundamentals

Term 1 - 2023

Profile information current as at 07/05/2024 07:57 am

All details in this unit profile for ENEP12007 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

This unit provides you with an overview of the business and commercial aspects of professional engineering and assists you to develop a specific skill relevant to your intended career. You will be able to evaluate workplace experiences in terms of the Engineers Australia, Stage 2 Competencies for Professional Engineers.

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. **Written Assessment**

Weighting: 60%

2. **Presentation**

Weighting: 10%

3. **Portfolio**

Weighting: 30%

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 Moodle Survey

Feedback

Students expressed satisfaction with the resources and support provided for completing assessments.

Recommendation

Continue providing valuable resources to support students in their assessments.

Feedback from Moodle Survey and self reflection

Feedback

Ordering and focusing on the elevated pitch of the business plans.

Recommendation

Reorder the sequence and focus of the presentation as an elevated pitch for project funding and business plan assessments for better coherence and relevance.

Feedback from Moodle Survey

Feedback

Unclear task requirements in contract management section of the assessment

Recommendation

Clearly outline task requirements in the task sheets for the contract management section of the assessment

Feedback from Moodle Survey

Feedback

Improve content related to business finance and capital raising with a more current real-world example

Recommendation

Enhance the course content related to business finance and capital raising by incorporating up-to-date, real-world examples to engage students better and demonstrate the relevance of the concepts in practice.

Unit Learning Outcomes

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

1. Describe and reflect on commercial and business aspects of professional engineering practice
2. Generate professional business documentation suitable for engineering enterprises
3. Provide evidence of the continuing development of skills relevant to professional engineering career
4. Map and self-evaluate workplace activities in terms of the Engineers Australia Stage 2 Competencies for Professional Engineers.

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:

Introductory

1.4 Discernment of knowledge development and research directions within the engineering discipline. (LO: 1N 2N)

2.1 Application of established engineering methods to complex engineering problem-solving. (LO: 1N 2N 3N)

2.4 Application of systematic approaches to the conduct and management of engineering projects. (LO: 1N 2N)

3.1 Ethical conduct and professional accountability. (LO: 4N)

Intermediate

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

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

3.4 Professional use and management of information. (LO: 1N 2I 4N)

3.5 Orderly management of self, and professional conduct. (LO: 3N 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 <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
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Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 60%	•	•		
2 - Presentation - 10%	•	•		
3 - Portfolio - 30%			•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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

Ashfaque Chowdhury Unit Coordinator
a.chowdhury@cqu.edu.au

Schedule

Week 1 - 06 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Introduction, Unit Overview and Co-Op Process	Reference study materials will be provided on Moodle	

Week 2 - 13 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Business Cases and the Project assessment framework	Reference study materials will be provided on Moodle	

Week 3 - 20 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Problem identification and Options analysis	Reference study materials will be provided on Moodle	

Week 4 - 27 Mar 2023

Module/Topic	Chapter	Events and Submissions/Topic
Commercial justification and economic analysis	Reference study materials will be provided on Moodle	

Week 5 - 03 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Business finance and raising capital	Reference study materials will be provided on Moodle	

Vacation Week - 10 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 17 Apr 2023

Module/Topic	Chapter	Events and Submissions/Topic
Business Risk Management	Reference study materials will be provided on Moodle	
Week 7 - 24 Apr 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Contract Management / Tender Process	Reference study materials will be provided on Moodle	A Complete Business Case Due: Week 7 Friday (28 Apr 2023) 11:45 pm AEST
Week 8 - 01 May 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Engineers Australia Chartered Process	Reference study materials will be provided on Moodle	
Week 9 - 08 May 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Graduate Development and Job Applications	Reference study materials will be provided on Moodle	
Week 10 - 15 May 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Selection Criteria and Interviews	Reference study materials will be provided on Moodle	Business Case Presentation Due: Week 10 Friday (19 May 2023) 11:45 pm AEST
Week 11 - 22 May 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Entrepreneurship	Training Videos from Supervisor Development course available on Moodle	
Week 12 - 29 May 2023		
Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Final Year Thesis Topics Personal Portfolio work - Developing Specific Workplace Skills Unit Review		
Review/Exam Week - 05 Jun 2023		
Module/Topic	Chapter	Events and Submissions/Topic
		Portfolio Due: Review/Exam Week Tuesday (6 June 2023) 11:45 pm AEST
Exam Week - 12 Jun 2023		
Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 A Complete Business Case

Assessment Type

Written Assessment

Task Description

A business case covering the options analysis and preferred option for a proposed project. Business case shall include project costings, economic analysis, planned to finance of proposed option, risk management and proposed delivery. Full task description is available on Moodle

Assignments submission:

Online submission is the only submission mode for all assignments in this course. To submit electronically, the

assignment must be saved in PDF format and the files must not be password protected. You are not permitted to submit any hard copies of your assignments.

General rules:

- Non-PDF files will not be accepted.
- Access to the uploading link closes at the scheduled submission time. No submissions will be accepted after the due date and hour unless a student is granted an extension by the Course Coordinator prior to the date of the submission.
- Submission link will be activated in due time by the lecturer.

Assessment Due Date

Week 7 Friday (28 Apr 2023) 11:45 pm AEST

Return Date to Students

Week 9 Friday (12 May 2023)

It is expected that assessment item will be returned in 2 weeks from the due date.

Weighting

60%

Minimum mark or grade

You must get a minimum 30% on this assessment item to secure a Pass in this unit

Assessment Criteria

A marking guideline is provided on Moodle that includes indicators of attainment for each element of the assessment item.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Original copies must be converted to pdf documents. No photocopies / scanned version permitted.

Learning Outcomes Assessed

- Describe and reflect on commercial and business aspects of professional engineering practice
- Generate professional business documentation suitable for engineering enterprises

2 Business Case Presentation

Assessment Type

Presentation

Task Description

Students prepare a short audio-visual presentation highlighting the essential facts of the business idea and plan on the proposed business. Consider that the presentation is vital to convincing the potential financier/investor in the project.

Assessment Due Date

Week 10 Friday (19 May 2023) 11:45 pm AEST

Return Date to Students

Week 12 Friday (2 June 2023)

It is expected that assessment item will be returned in 2 weeks from the due date.

Weighting

10%

Minimum mark or grade

You must get a minimum 30% on this assessment item to secure a Pass in this unit

Assessment Criteria

A marking guideline is provided on Moodle that includes indicators of attainment for each element of the assessment item.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

The presentation can be submitted as a PowerPoint slide with voice annotation or as a recorded video.

Learning Outcomes Assessed

- Describe and reflect on commercial and business aspects of professional engineering practice
- Generate professional business documentation suitable for engineering enterprises

3 Portfolio

Assessment Type

Portfolio

Task Description

The portfolio must include all mandatory assessment tasks as listed:

- A proposed contract management plan for the implementation of the project as identified in the business case. This is to highlight the individuals understanding of the procurement and contract management process.
- A Statement on Chartered Process: The statement should show a student's general understanding of Engineers Australia's new application process for Chartered status and include the competency evidence claims
- An application for a graduate position, including personal resume, cover letter and a statement addressing job selection criteria.

Students will find further details and support materials for these assessment tasks on Moodle.

General rules:

- Non-PDF files will not be accepted.
- Access to the uploading link closes at the scheduled submission time. No submissions will be accepted after the due date and hour unless a student is granted an extension by the Course Coordinator prior to the date of the submission.
- Submission link will be activated in due time by the lecturer.

Assessment Due Date

Review/Exam Week Tuesday (6 June 2023) 11:45 pm AEST

Return Date to Students

Exam Week Friday (16 June 2023)

It is expected that assessment item will be returned in 2 weeks from the due date.

Weighting

30%

Minimum mark or grade

You must get a minimum 30% on this assessment item to secure a Pass in this unit

Assessment Criteria

A marking guideline is provided on Moodle that includes indicators of attainment for each element of the assessment item.

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

The portfolio should be submitted as a single pdf file with all items of the portfolio.

Learning Outcomes Assessed

- Provide evidence of the continuing development of skills relevant to professional engineering career
- Map and self-evaluate workplace activities in terms of the Engineers Australia Stage 2 Competencies for Professional Engineers.

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