ENEG20001 *Australian Engineering Practice*
Term 2 - 2018

Profile information current as at 14/12/2025 12:37 pm

General Information

Overview

In this unit, you will be introduced to the roles of professional engineers in the Australian context. You will explore the Engineers Australia Stage 1 competencies and the place of the professional engineer in the engineering team. You will see that the engineer's role is to facilitate the integration of technical, business, social, cultural, environmental, economic and political issues that arise within engineering projects and programs. You will apply information literacy skills and information technology skills to engineering projects and present project outcomes. You will work in teams and develop team skills, develop communication skills appropriate for the professional environment, apply risk assessment and workplace health and safety assessment to engineering activities and explore the complex nature of engineering activities and the need to deal with uncertainty and conflicting information. You will prepare a portfolio to demonstrate development of a professional attitude, problem-solving skills, technical knowledge and productive work practices, and provide evidence of a professional capacity to communicate, work and learn productively, both individually and in teams.

Details

Career Level: *Postgraduate*
Unit Level: *Level 8*
Credit Points: *12*
Student Contribution Band: *2*
Fraction of Full-Time Student Load: *0.25*

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 2 - 2018

- Distance
- Melbourne
- Perth
- 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 12-credit Postgraduate 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

1. **Portfolio**
Weighting: 100%

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 Unit evaluation

Feedback
The unit taught students real world engineering practice and has helped students to become better engineers.

Recommendation
Continue to maintain this level of satisfaction at least.

Feedback from Unit evaluation

Feedback
The lecture class was very noisy.

Recommendation
The face-to-face lecturer should be in the class.

Feedback from Unit evaluation

Feedback
Portfolio marking was not consistent among the teaching team.

Recommendation
Develop a common and consistent understanding of portfolio marking within the teaching team.

Unit Learning Outcomes

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

1. Explain the historical impact of engineering on society
2. Explain engineering professionalism and ethics in the Australian context
3. Discuss engineers' roles, responsibilities and the need to employ principles of sustainable development
4. Manage information and documentation
5. Communicate effectively across a range of contexts
6. Lead or participate collaboratively in teams
7. Demonstrate critical self-review, self-management and lifelong learning

The learning outcomes are linked to Engineers Australia Stage 1 Competencies.

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	6	7
1 - Knowledge	○	○	○				
2 - Communication			○ ○ ○				
3 - Cognitive, technical and creative skills							
4 - Research			○				
5 - Self-management				○ ○			
6 - Ethical and Professional Responsibility	○	○	○				
7 - Leadership				○			
8 - Aboriginal and Torres Strait Islander Cultures							

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
1 - Portfolio - 100%	○	○	○		○	○		

Textbooks and Resources

Textbooks

ENEG20001

Prescribed

The Making of an Expert Engineer
(2014)
Authors: Trevelyan , J
CRC Press (Taylor and Francis)
London , UK
ISBN: 9781138026926
Binding: Paperback

Additional Textbook Information
An ebook version is also available. The link is available at the CRC Press.

View textbooks at the CQUniversity Bookshop

IT Resources

You will need access to the following IT resources:

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

Referencing Style

No referencing style set.

Teaching Contacts

Heena Panchasara Unit Coordinator
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Schedule

Week 1 - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Why Engineer? What value does an engineer provide? That is, why do we have engineers in the first place?	Chapters 1, 2 and 3 (80 pages)	

Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic

Becoming an expert; What engineers need to know This week focuses on engineering knowledge and how engineers come to know what they know and the importance of lifelong learning. University education is useful to prepare you for a lifetime of learning on the job.	Textbook Chapters 4 and 5 (71 pages)	
Week 3 - 23 Jul 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Listening, seeing, reading; Collaboration Communication and collaboration are critical skill for engineers, who achieve most of their work by persuading others to do things for them, e.g. construction and manufacturing. Engineers spend 60% of their time communicating.	Chapters 6-7 (85 pages)	Reflective Writing Task 1 due Week 3 Friday 5PM
Week 4 - 30 Jul 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Teaching and technical coordination Engineers spend a significant amount of time explaining their ideas to clients, managers, technicians and others. Understanding how people learn is an important skill that can reduce frustration in the workplace.	Chapters 8-9, 70 pages	Project Proposal Due Week 4 Friday 5PM
Week 5 - 06 Aug 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Managing a project	Chapter 10	
Vacation Week - 13 Aug 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Week 6 - 20 Aug 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Understanding investment decisions	Chapter 11, 48 pages	Reflective Writing Task 2 due Week 6 Friday 5PM
Week 7 - 27 Aug 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Negotiating sustainability	Chapter 12, 44 pages	
Week 8 - 03 Sep 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Great expectations	Chapter 13, 48 pages	Team Project Draft Submission Due Friday 5PM
Week 9 - 10 Sep 2018		
Module/Topic	**Chapter**	**Events and Submissions/Topic**
Seeking work	Chapter 14	Reflective Writing Task 3 Due Friday 5PM

Week 10 - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Conclusion	Chapter 15, 10 pages	

Week 11 - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Finalize project and portfolio		Final Project Report Due Friday 5PM

Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Finalise project and portfolio		Final Portfolio Due Friday 5PM **Portfolio** Due: Week 12 Friday (5 Oct 2018) 5:00 pm AEST

Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Portfolio

Assessment Type
Portfolio

Task Description
Your portfolio will demonstrate how you have met the learning outcomes for the unit and to what level. It should be presented in the form of a technical report including a table of contents. You must include **evidence** from your project work, team work, class activities and readings to demonstrate your achievement of the learning outcomes. There are minimum requirements for the Portfolio and you must provide evidence of the minimum requirements in order to be eligible for a passing grade for this unit.
Compulsory pieces of work to be included in the portfolio are listed below. Failing to include the compulsory pieces of work in the portfolio will result in a Fail.
Few of the compulsory mandatory item to be included in your portfolio shall be:
1) Your Professional CV
2) The CPD record sheet with minimum of 3 professional practice exposure activities that you (Student) complete during the term
3) A CPD plan for how you will meet the 480 hours total by the end of your program study (Masters of Engineering)
At the beginning of the term, it is important that you familiarize yourself with the evidence you need to collect so that you can collect the required evidence as you work through the term.
During the term you will complete a **project** as part of a team. You will use your personal contributions to the team **project report** and **team presentation** as part of the evidence of your achievement of the learning outcomes.
Throughout the term, you will be writing some **reflective papers** that directly relate to the set readings and the learning outcomes. These will form part of the evidence of your achievement of the learning outcomes.
Individual Viva Voce
Following the submission of the Portfolio, you may be asked to undertake a viva voce to substantiate the claims made in your Portfolio against each learning outcome. The viva voce is **compulsory**. During the viva voce, you will be asked questions directly related to the Portfolio assessment criteria and the evidence you have provided. This may include evidence related to your team work. Your mark for particular Portfolio criteria may be affected by your viva voce responses.
Further information on the Portfolio submission is available on the Unit Website.

Assessment Due Date
Week 12 Friday (5 Oct 2018) 5:00 pm AEST

The Portfolio is due at the end of Week 12. Viva voces will be scheduled for Week 13.

Return Date to Students

Weighting
100%

Assessment Criteria
You must provide evidence of your achievement of each of the Learning Outcomes.
There is an Assessment Criteria sheet for this unit available on the Unit Website. The Assessment Criteria sheet gives guidance regarding the type of evidence required for each level of achievement. It is important that you review the Criteria sheet at the beginning of the term so you are familiar with the evidence you need to collect throughout the term.
There are minimum requirements for the Portfolio and you must provide evidence of the minimum requirements in order to be eligible for a passing grade for this unit.

Submission
Online

Learning Outcomes Assessed

- Explain the historical impact of engineering on society
- Explain engineering professionalism and ethics in the Australian context
- Discuss engineers' roles, responsibilities and the need to employ principles of sustainable development
- Manage information and documentation
- Communicate effectively across a range of contexts
- Lead or participate collaboratively in teams
- Demonstrate critical self-review, self-management and lifelong learning

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Self-management
- Ethical and Professional Responsibility

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