



# ENEG14005 Engineering Honours Project Implementation

## Term 2 - 2017

Profile information current as at 01/05/2024 03:23 pm

All details in this unit profile for ENEG14005 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 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 - 2017

- Bundaberg
- Distance
- Gladstone
- Mackay
- 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 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

#### 1. **Presentation**

Weighting: 10%

#### 2. **Written Assessment**

Weighting: 20%

#### 3. **Portfolio**

Weighting: 60%

#### 4. **Presentation**

Weighting: 10%

### 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 Reflection by unit coordinator

**Feedback**

Learning outcomes and assessment items should reflect what we want students to actually do

**Recommendation**

Propose changes to learning outcomes and assessment items

## Unit Learning Outcomes

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

1. Apply a substantial degree of the Engineers Australia's Stage One Competencies for Professional Engineers to the implementation phases of a project.
2. Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers.
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 advisers 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 advisers, other stakeholders and the wider community.

By completing this unit and the preceding Planning unit each student will meet Engineers Australia's Stage One Competencies for Professional Engineers to a substantial degree.



## Textbooks and Resources

### Textbooks

ENEG14005

#### Supplementary

##### **The Thinker's Guide to Engineering Reasoning**

Edition: 2nd (2013)

Authors: Richard Paul, Dr. Robert Niewoehner and Linda Elder

Foundation for Critical Thinking

Tomales, CA, USA

ISBN: 978-0-9857544-1-9

Binding: Paperback

#### Additional Textbook Information

[May also be available as a Kindle Edition. Check](#)

<http://www.criticalthinking.org/store/products/engineering-reasoning-2nd-edition/232>

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Presentation software such as MS Powerpoint
- Project management software such as MS Project
- Software specific to project
- Word processing software such as MS Word

## Referencing Style

**All submissions for this unit must use the referencing styles below:**

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

For further information, see the Assessment Tasks.

## Teaching Contacts

**Justin Hyde** Unit Coordinator

[j.hyde@cqu.edu.au](mailto:j.hyde@cqu.edu.au)

## Schedule

### Week 1 - 10 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Commence implementation of your project plan prepared in the Planning unit.		Share progress with adviser(s)

### Week 2 - 17 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Check with your advisor(s) and other project stakeholders to see if there is any new information which may impact your project. Modify your project plan if required.

Share progress with adviser(s)

### Week 3 - 24 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Commence work on your project report layout. A good place to start is by drafting the likely headings.		Share progress with adviser(s)

### Week 4 - 31 Jul 2017

Module/Topic	Chapter	Events and Submissions/Topic
Start thinking about your Technical Poster, maybe research what a Technical Poster should look like and contain.		Share progress with adviser(s)

### Week 5 - 07 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Start preparing your project update presentation which is scheduled for week 6.		Share progress with adviser(s)

### Vacation Week - 14 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check the assessment criteria sheet for guidance on your project update presentation.		Share progress with adviser(s)

### Week 6 - 21 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Present your project update presentation to your academic advisor and other academics in your discipline. Take notes from the advice and guidance given after your presentation.		Share progress with adviser(s) <b>Project Update Presentation</b> Due: Week 6 Wednesday (23 Aug 2017) 9:00 am AEST

### Week 7 - 28 Aug 2017

Module/Topic	Chapter	Events and Submissions/Topic
Start preparing your preliminary results document.		Share progress with adviser(s)

### Week 8 - 04 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check the assessment criteria sheet for guidance on your preliminary results.		Share progress with adviser(s)

### Week 9 - 11 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Invite your academic adviser to provide formal advice by submitting your preliminary results. You may also consider submitting your preliminary results document to your industry advisor (if applicable).		Share progress with adviser(s) <b>Preliminary Results</b> Due: Week 9 Monday (11 Sept 2017) 9:00 am AEST

### Week 10 - 18 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Use the advice and guidance from your project update presentation and preliminary results to refine your final project report, poster and GECon presentation.

Share progress with adviser(s)

### Week 11 - 25 Sep 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check the assessment criteria sheet for guidance on your project report, poster and GECon presentation. Review and reflect on your attainment of Engineers Australia's Stage One Competencies.		Share progress with adviser(s)

### Week 12 - 02 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
Your project report, poster and reflections should be finalised this week.		Share progress with adviser(s)

### Review/Exam Week - 09 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
Submit your portfolio which should include your final project report, poster and reflections.		Share progress with adviser(s) <b>Portfolio Due:</b> Review/Exam Week Monday (9 Oct 2017) 9:00 am AEST

### Exam Week - 16 Oct 2017

Module/Topic	Chapter	Events and Submissions/Topic
Continue preparing your presentation for GECon		

## Assessment Tasks

### 1 Project Update Presentation

#### Assessment Type

Presentation

#### Task Description

Prepare a presentation which updates your academic adviser and other academics on your project progress. Presentations are scheduled for Wednesday week 6, 9am-11am and 6pm-8pm. Please ensure you are available at these times.

#### Assessment Due Date

Week 6 Wednesday (23 Aug 2017) 9:00 am AEST

Presentations are scheduled for Wednesday week 6, 9am-11am and 6pm-8pm. Please ensure you are available at these times.

#### Return Date to Students

Advice and guidance will be given verbally immediately after your presentation. Please take your own notes.

#### Weighting

10%

#### Minimum mark or grade

50%

#### Assessment Criteria

Your presentation must meet the minimum standard as described in the assessment criteria sheet in Moodle. The assessment criteria also specifies how you may achieve a higher mark for your presentation.

## Referencing Style

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

## Submission

Online

## Submission Instructions

No submission required. Just deliver your presentation at the scheduled time.

## Learning Outcomes Assessed

- Apply a substantial degree of the Engineers Australia's Stage One Competencies for Professional Engineers to the implementation phases of a project.
- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers.
- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project.
- Communicate preliminary results to project advisers promptly to solicit timely and constructive feedback.

## Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## 2 Preliminary Results

### Assessment Type

Written Assessment

### Task Description

Prepare a document with your preliminary project results. This document can be used to develop the results section of your final report.

### Assessment Due Date

Week 9 Monday (11 Sept 2017) 9:00 am AEST

### Return Date to Students

Monday (25 Sept 2017)

### Weighting

20%

### Minimum mark or grade

25%

### Assessment Criteria

Your preliminary results document must meet the minimum standard as described in the assessment criteria sheet in Moodle. The assessment criteria also specifies how you may achieve a higher mark for your preliminary results document.

## Referencing Style

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

## Submission

Online

## Learning Outcomes Assessed

- Apply a substantial degree of the Engineers Australia's Stage One Competencies for Professional Engineers to the implementation phases of a project.
- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers.



- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project.
- Communicate preliminary results to project advisers promptly to solicit timely and constructive feedback.

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## **3 Portfolio**

### **Assessment Type**

Portfolio

### **Task Description**

Prepare a portfolio which includes the following compulsory components, submitted as three separate documents:

- Project Report
- Project Poster
- Reflections on your attainment of Engineers Australia's Stage One Competencies.

Your Project Report should be structured as follows:

- Title page
- Summary
- Acknowledgments
- Table of Contents
- List of Figures
- List of Tables
- Glossary/Nomenclature
- Introduction to the Project and Report
- Literature Review
- Project Methodology Review
- Results and Discussion
- Conclusion
- Appendices as appropriate (please note that any appendices will not be graded)

Guidance for the poster and other resources are in Moodle.

Failure to include any portfolio component will result in a non-passing grade.

### **Assessment Due Date**

Review/Exam Week Monday (9 Oct 2017) 9:00 am AEST

### **Return Date to Students**

Once marking and moderation have been completed

### **Weighting**

60%

### **Minimum mark or grade**

50%

### **Assessment Criteria**

Each component of your portfolio must meet the minimum standard as described in the assessment criteria sheet in Moodle. The assessment criteria also specifies how you may achieve higher grades.

### **Referencing Style**

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

### **Submission**

Online

## Learning Outcomes Assessed

- Apply a substantial degree of the Engineers Australia's Stage One Competencies for Professional Engineers to the implementation phases of a project.
- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers.
- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project.
- Prepare professional project documents that convey the processes and outcomes of your project.
- Communicate your project outcomes to project advisers, other stakeholders and the wider community.

## Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## 4 GECon Presentation

### Assessment Type

Presentation

### Task Description

Prepare a presentation which reviews your project and project outcomes. Deliver your presentation at GECon on Thursday 26th October 2017.

### Assessment Due Date

Deliver your presentation at GECon on Thursday 26th October 2017.

### Return Date to Students

Once marking and moderation have been completed.

### Weighting

10%

### Minimum mark or grade

50%

### Assessment Criteria

Your presentation must meet the minimum standard as described in the assessment criteria sheet in Moodle. The assessment criteria also specifies how you may achieve a higher mark for your presentation.

### Referencing Style

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

### Submission

Online

### Submission Instructions

No submission required. Just deliver your presentation at the scheduled time.

## Learning Outcomes Assessed

- Apply a substantial degree of the Engineers Australia's Stage One Competencies for Professional Engineers to the implementation phases of a project.
- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers.
- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project.
- Communicate your project outcomes to project advisers, other stakeholders and the wider community.

## Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## 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