ENEG14003 *Engineering Honours Project Planning*
Term 1 - 2017

Profile information current as at 02/05/2024 05:10 am

General Information

Overview

As a student in the final year of your Bachelor of Engineering (Honours) course, you will work independently to plan a project that allows you to demonstrate technical and professional capabilities (Engineers Australia's Stage One Competencies) expected of graduating professional engineers. You will conduct research, demonstrate critical thinking and document sound analysis, decision-making and judgement to support your project. You will work and learn autonomously, prepare and adhere to work and reporting schedules, communicate progress, and prepare formal and informal project documents. You will define and scope your project, apply technical knowledge, assess safety and risks and prepare a proposal and plan for implementing the project in the following implementation unit. Note: Before enrolment can be accepted, you must confirm with the unit coordinator that you have identified a suitable project, obtained an academic adviser and have completed all relevant units in prior years of the course.

Details

Career Level: *Undergraduate*
Unit Level: *Level 4*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

COND: Completion of all prior units in the nominal course structure - to be checked by Head of Course or Unit Coordinator during facilitation of the enrolment process.
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 - 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 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: 10%
2. **Written Assessment**
Weighting: 20%
3. **Written Assessment**
Weighting: 20%
4. **Written Assessment**
Weighting: 50%

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 Student feedback.

Feedback
More learning resources required

Recommendation
Exemplars of previous student work will be made available in term 2.

Action
Exemplars will not be offered. Instead further guidance will be offered in Moodle for each assessment item.

Unit Learning Outcomes

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

1. Apply to a substantial degree the Engineers Australia's Stage One Competencies for Professional Engineers to the planning phases of an engineering project
2. Prepare a project scope with your advisers that includes a project definition, identification of project stakeholders and expected milestones and deliverables.
3. Research critical areas of your project by evaluating and extracting information from key reputable sources and relevant authorities.
4. Identify the tasks required for the implementation phases, including application of appropriate technical capability developed in preceding units of study, and integration with new capabilities necessary to form a comprehensive project plan.
5. Prepare a project proposal that justifies the continuation of the project into the implementation phases

By undertaking this unit and the follow-on Implementation unit students will demonstrate Engineers Australia's Stage One Competencies for Professional Engineers to a substantial degree.

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 - 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									

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Written Assessment - 10%	•	•	•	•	•	•	•	•		
2 - Written Assessment - 20%	•	•	•	•	•	•	•	•		
3 - Written Assessment - 20%	•	•	•	•	•	•	•	•		
4 - Written Assessment - 50%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

ENEG14003

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: 0-944583-33-4
Binding: Paperback

Additional Textbook Information
Also 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

Schedule

Week 1 - 06 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Commence researching your project.		Share progress with adviser(s)

Week 2 - 13 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Start preparing your project scope.		Share progress with adviser(s)

Week 3 - 20 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check guidelines for scope in Moodle.		Share progress with adviser(s)

Week 4 - 27 Mar 2017

Module/Topic	Chapter	Events and Submissions/Topic
Submit your project scope for feedback.		Share progress with adviser(s) **Project Scope** Due: Week 4 Monday (27 Mar 2017) 12:00 pm AEST

Week 5 - 03 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Continue developing your literature review and proposed project methodology.		Share progress with adviser(s)

Vacation Week - 10 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check guidelines for literature review in Moodle.		Share progress with adviser(s)

Week 6 - 17 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Submit your literature review for feedback.		Share progress with adviser(s) **Literature Review** Due: Week 6 Tuesday (18 Apr 2017) 12:00 pm AEST

Week 7 - 24 Apr 2017

Module/Topic	Chapter	Events and Submissions/Topic
Continue developing your proposed project methodology.		Share progress with adviser(s)

Week 8 - 01 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check guidelines for your proposed project methodology in Moodle.		Share progress with adviser(s)

Week 9 - 08 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Submit your proposed project methodology for feedback.		Share progress with adviser(s) **Proposed Project Methodology** Due: Week 9 Monday (8 May 2017) 12:00 pm AEST

Week 10 - 15 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Continue developing your project proposal and reflections.		Share progress with adviser(s)

Week 11 - 22 May 2017

Module/Topic	Chapter	Events and Submissions/Topic
Check guidelines for proposal and reflections in Moodle.		Share progress with adviser(s)

Week 12 - 29 May 2017

Module/Topic	Chapter	Events and Submissions/Topic

Submit your portfolio for grading and moderation.		Share progress with adviser(s) **Portfolio** Due: Week 12 Monday (29 May 2017) 12:00 pm AEST

Review/Exam Week - 05 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic

Exam Week - 12 Jun 2017

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Assessment Tasks

1 Project Scope

Assessment Type
Written Assessment

Task Description
Prepare a project scope which includes the following sections:

1. Project aim and objectives
2. Project justification
3. Stakeholder identification and stakeholder communication plan
4. Anticipated resources required
5. Expected project deliverables
6. Expected project milestones

Assessment Due Date
Week 4 Monday (27 Mar 2017) 12:00 pm AEST

Return Date to Students
Monday (10 Apr 2017)

Weighting
10%

Minimum mark or grade
25%

Assessment Criteria
Your project scope 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 project scope.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

Learning Outcomes Assessed

- Apply to a substantial degree the Engineers Australia's Stage One Competencies for Professional Engineers to the planning phases of an engineering project
- Prepare a project scope with your advisers that includes a project definition, identification of project stakeholders and expected milestones and deliverables.

Graduate Attributes

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

2 Literature Review

Assessment Type
Written Assessment

Task Description
Prepare a literature review appropriate for your project.

Assessment Due Date
Week 6 Tuesday (18 Apr 2017) 12:00 pm AEST

Return Date to Students
Week 8 Tuesday (2 May 2017)

Weighting
20%

Minimum mark or grade
25%

Assessment Criteria
Your literature review 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 literature review.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

Learning Outcomes Assessed

- Apply to a substantial degree the Engineers Australia's Stage One Competencies for Professional Engineers to the planning phases of an engineering project
- Research critical areas of your project by evaluating and extracting information from key reputable sources and relevant authorities.

Graduate Attributes

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

3 Proposed Project Methodology

Assessment Type
Written Assessment

Task Description
Prepare a project methodology that will help you achieve the deliverables of your project.

Assessment Due Date
Week 9 Monday (8 May 2017) 12:00 pm AEST

Return Date to Students
Monday (22 May 2017)

Weighting
20%

Minimum mark or grade
25%

Assessment Criteria
Your proposed project methodology 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 proposed project methodology.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

Learning Outcomes Assessed

- Apply to a substantial degree the Engineers Australia's Stage One Competencies for Professional Engineers to the planning phases of an engineering project
- Identify the tasks required for the implementation phases, including application of appropriate technical capability developed in preceding units of study, and integration with new capabilities necessary to form a comprehensive project plan.

Graduate Attributes

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

4 Portfolio

Assessment Type
Written Assessment

Task Description
Prepare a portfolio which must include the following compulsory components.

- Project Proposal which justifies that your project may continue into the Implementation phases.
- Reflections on how well your project helps you meet some of the CQU Graduate Capabilities for your discipline.

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

Assessment Due Date
Week 12 Monday (29 May 2017) 12:00 pm AEST

Return Date to Students

Once marking and moderation have been completed

Weighting
50%

Minimum mark or grade
50%

Assessment Criteria
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 a higher mark for your portfolio.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

Learning Outcomes Assessed

- Apply to a substantial degree the Engineers Australia's Stage One Competencies for Professional Engineers to the planning phases of an engineering project
- Prepare a project scope with your advisers that includes a project definition, identification of project stakeholders and expected milestones and deliverables.
- Research critical areas of your project by evaluating and extracting information from key reputable sources and relevant authorities.
- Identify the tasks required for the implementation phases, including application of appropriate technical capability developed in preceding units of study, and integration with new capabilities necessary to form a comprehensive project plan.
- Prepare a project proposal that justifies the continuation of the project into the implementation phases

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