ENRP20003 *Engineering Research Project Implementation*
Term 2 - 2018

Profile information current as at 04/05/2024 11:46 pm

All details in this unit profile for ENRP20003 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.

Corrections

General Information

Overview
This unit is designed so that students can complete an investigative study through the analysis of, reflection on and critique of, an area of their professional practice that was commenced in Engineering Research Project Planning. By completing this project, students will contribute to the body of knowledge for their discipline. Students will present their project in a thesis, a professional presentation and a technical paper.

Details
Career Level: *Postgraduate*
Unit Level: *Level 9*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites
Prerequisite: ENRP20001 Engineering Research 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 - 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. **Report**
Weighting: 20%
2. **Presentation**
Weighting: 20%
3. **Thesis/Dissertation**
Weighting: 50%
4. **Essay**
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 Students

Feedback
Students did not receive feedback in time.

Recommendation
Supervisors would be prompted regularly to provide feedback to students.

Feedback from Staff

Feedback
More resources should be supplied to the students.

Recommendation
Adopt a textbook as a resource and improve delivery materials.

Feedback from Student

Feedback
Some software and computers required for the projects are not available.

Recommendation
In the Simulation Lab, there are only 4 computers which are not enough for big classes. Another six computers will be added in 2019, more software will be available in 2019.

Feedback from Staff

Feedback
Three discipline students enrolled together in one class made it difficult to moderate and finalise results.

Recommendation
Students will be grouped according to their discipline and a Unit Coordinator for each discipline will be allocated.

Feedback from Students

Feedback
Some students find it difficult to learn the software required to complete the projects.

Recommendation
Additional resources on software will be provide on the Moodle site.

Unit Learning Outcomes

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

1. Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers and stakeholders
2. Think critically, demonstrate sound analysis, and make rational, justifiable decisions in order to find the optimal, sustainable solution
3. Demonstrate leadership by contributing to the body of knowledge related to the discipline area and participating in professional networks
4. Communicate preliminary results to stakeholders through interim and regular progress reports to solicit timely and constructive feedback
5. Communicate findings using written and oral methods to inform both internal and external workplace practicing professionals
6. Critically reflect on self-performance and develop a plan for lifelong and professional learning.

n/a

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
1 - Report - 20%	●			●		
2 - Presentation - 20%		●	●	●	●	
3 - Thesis/Dissertation - 50%	●	●	●		●	
4 - Essay - 10%						●

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - Report - 20%	○	○	○	○	○			
2 - Presentation - 20%	○	○	○	○		○	○	
3 - Thesis/Dissertation - 50%	○	○	○	○		○	○	

Assessment Tasks	Graduate Attributes							
	1	2	3	4	5	6	7	8
4 - Essay - 10%		○			○	○		

Textbooks and Resources

Textbooks
ENRP20003

Prescribed

Guide to Research Projects for Engineering Students: Planning, Writing and Presenting
(2015)
Authors: Leong, EC
Apple Academic Press
Oakville , CA
ISBN: 9781482238778
Binding: Paperback

Additional Textbook Information
This text is also available in Kindle edition. However, paper copies are still available at the CQUni Bookshop here

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

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

- Harvard (author-date)
- Vancouver

For further information, see the Assessment Tasks.

Teaching Contacts

Abdul Mazid Unit Coordinator
a.mazid@cqu.edu.au

Schedule

Week 1. Literature Review - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Narrating and formatting Literature Review Chapter		

Week 2. Thesis / Dissertation - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic

Components of a thesis

Week 3. Theory and Model - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Theory and Model Development Practice		

Week 4. Experiment and Simulation - 30 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Experiment/Simulation Design		

Week 5. Methodology - 06 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Methodology Design and Procedure Development		

Vacation Week - 13 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic

Week 6. Referencing Style - 20 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Referencing Style Revisit and Practice		Interim Report/Thesis Due: Week 6 Friday (24 Aug 2018) 11:45 PM AEST
		Interim Thesis/Dissertation Due: Week 6 Friday (24 Aug 2018) 11:45 pm AEST

Week 7. Presentation - 27 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Presentation Document and Presentation Skills		

Week 8. Technical Paper - 03 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Research / Technical Paper Writing and formating		

Week 9. Thesis - 10 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Thesis - accumulating chapters together		Presentation PowerPoint File Due: Week 9 Friday (14 Sept 2018) 11:45 PM AEST
		Presentation PowerPoint Due: Week 9 Friday (14 Sept 2018) 11:45 pm AEST

Week 10. Thesis Presentation - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Thesis Presentation according to Schedule		

Week 11. Research Paper - Revisit - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Components of Research Paper for publishing		

Week 12. Thesis Submission - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

		Implementation Thesis Due: Week 12 Friday (05 Oct 2018) 11:45 PM AEST Research Paper Due: Week 12 Friday (05 Oct 2018) 11:45 PM AEST
Components of Thesis for Submission - Revisit		**Thesis/Dissertation** Due: Week 12 Friday (5 Oct 2018) 11:45 pm AEST **Research/Technical Paper** Due: Week 12 Friday (5 Oct 2018) 11:45 pm AEST

Review/Exam Week - 08 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
No examination in ENRP20003		

Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Term Specific Information

Assessment Tasks

1 Interim Thesis/Dissertation

Assessment Type
Report

Task Description
This submission is your preliminary thesis. Follow the content of a typical thesis and examples provided in classes. Typically this includes:

1. Title page with all necessary information on it;
2. Abstract (about 200 words);
3. Keywords (maximum 5 of them those identify the research and can be used for database search);
4. Acknowledgement (if applicable);
5. Introduction and Background;
6. Objective/s of Research;
7. Literature Review (in wider sense information on what has been published in your particular research topic area);
8. Theoretical Background or Theory Development (Detail of available theory/ies suitable to use for your research);
9. Experimental Methodology Development (Describe Tools required, Design of Experiments, Procedure of Experiments, alogorithms or flow chart of coding if applicable);
10. Experimental Results and Discussion (Tabular, graphical form, simulated results, discussions and comments);
11. Conclusion and Future Works;
12. List of References;
13. Appendix (if applicable).

Assessment Due Date
Week 6 Friday (24 Aug 2018) 11:45 pm AEST

Return Date to Students
Week 7 Friday (31 Aug 2018)

Weighting
20%

Assessment Criteria
Detail Assessment Crteria will be provided in due time, this may include the following:

- Meeting attendance with supervisor;

- Quality of title page, Abstract, Problem Statement, Objective and Keywords.
- Comprehensive Literature Review.
- Theory Development
- Methodology, Design of Experiments and Procedure, Problem Solving originality.
- Practical Works, Results and Discussions, Conclusions

Referencing Style

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

Submission
Online

Learning Outcomes Assessed

- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers and stakeholders
- Communicate preliminary results to stakeholders through interim and regular progress reports to solicit timely and constructive feedback

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Self-management

2 Presentation PowerPoint

Assessment Type
Presentation

Task Description
Presentation time 12 mins and 3 mins for questions and answer. Presentation PowerPoint should content detail information on:

1. Research Objective;
2. Literature Review;
3. Experiments and Results;
4. Conclusions

Assessment Due Date
Week 9 Friday (14 Sept 2018) 11:45 pm AEST

Return Date to Students
Week 11 Wednesday (26 Sept 2018)

Weighting
20%

Assessment Criteria
Clarity of Objectives, Theory and Model development, Experiments, Results and Conclusions, as well quality of questions and answers.

Referencing Style

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

Submission
Online

Learning Outcomes Assessed

- Think critically, demonstrate sound analysis, and make rational, justifiable decisions in order to find the optimal, sustainable solution
- Demonstrate leadership by contributing to the body of knowledge related to the discipline area and participating in professional networks

- Communicate preliminary results to stakeholders through interim and regular progress reports to solicit timely and constructive feedback
- Communicate findings using written and oral methods to inform both internal and external workplace practicing professionals

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility
- Leadership

3 Thesis/Dissertation

Assessment Type
Thesis/Dissertation

Task Description
This is your final version of thesis and content are similar as in Interim Thesis but upgraded

Assessment Due Date
Week 12 Friday (5 Oct 2018) 11:45 pm AEST

Return Date to Students
Exam Week Friday (19 Oct 2018)

Weighting
50%

Assessment Criteria
Detail Assessment Criteria will be provided in due time. this may include clarity and quality of the whole thesis.

Referencing Style

- Harvard (author-date)
- Vancouver

Submission
Online

Learning Outcomes Assessed

- Implement the project plan prepared in the Planning unit with consultation and guidance from your project advisers and stakeholders
- Think critically, demonstrate sound analysis, and make rational, justifiable decisions in order to find the optimal, sustainable solution
- Demonstrate leadership by contributing to the body of knowledge related to the discipline area and participating in professional networks
- Communicate findings using written and oral methods to inform both internal and external workplace practicing professionals

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills
- Research
- Ethical and Professional Responsibility
- Leadership

4 Research/Technical Paper

Assessment Type
Essay

Task Description
A 6 page paper out of your thesis, must be of publishable quality in a refereed conference. Use suggested formating and referencing styles, Times New Roman, Font 11.

Assessment Due Date
Week 12 Friday (5 Oct 2018) 11:45 pm AEST

Return Date to Students
Exam Week Friday (19 Oct 2018)

Weighting
10%

Assessment Criteria
Major Assessment Criteria is whether it is of publishable (in a refereed conference quality or not. Detail of it will be provided in due time.

Referencing Style

- Harvard (author-date)
- Vancouver

Submission
Online

Learning Outcomes Assessed

- Critically reflect on self-performance and develop a plan for lifelong and professional learning.

Graduate Attributes

- Communication
- 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