ENRP20003 *Engineering Research Project Implementation*
Term 2 - 2019

Profile information current as at 06/05/2024 09:45 pm

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 - 2019

- Melbourne
- Online
- 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. **Essay**
Weighting: 10%
3. **Thesis/Dissertation**
Weighting: 50%
4. **Presentation**
Weighting: 20%

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 record; Unit Coordinator

Feedback
The unit provides excellent knowledge base for research projects.

Recommendation
Recommended to continue teaching the unit using regular lecture, tutorial, and effective and individual supervision. Marking assignments and providing fruitful feedback in due time is highly recommended.

Feedback from Unit Evaluation record

Feedback
Very limited resources and equipment for experimental research.

Recommendation
Additional resources are strongly recommended to enable students pursue more experimental research in their chosen discipline.

Feedback from Unit Evaluation record

Feedback
Extended library hours and resources.

Recommendation
Library resources should be increased such as text and reference books, and the number of computers. Considering project students are busy Monday to Thursday in Internship, library hours should be up to 8 pm every day (all 7 days) and exam period longer working hours as suggested by students.

Feedback from Unit Evaluation record; Unit Coordinator

Feedback
Students must be guided to learn software required for project.

Recommendation
Supervisors recommending a software for students should train them up. However, students must be proactive and pick up several skills through self-learning.

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

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%	○	○	○	○		○	○	
4 - Essay - 10%		○			○	○		

Textbooks and Resources

Textbooks

ENRP20003

Prescribed

Guide to Research Projects for Engineering Students: Planning, Writing and Presenting
1st Edition (2015)
Authors: Eng Choon Leong, Carmel Lee-Hsia Heah, Kenneth Keng Wee Ong
CRC Press
Binding: eBook

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

Raj Sharma Unit Coordinator
r.sharma@cqu.edu.au

Schedule

Week 1 - 15 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Organise a weekly meeting time and place/zoom with your advisor. Discuss with your advisor on how to address the feedback, advice and guidance given on your planning report by reviewers. Prepare a new project plan if required. Commence implementation of your project plan. Prepare project report layout.		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 2 - 22 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic
Report: Work on introduction and objectives		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 3 - 29 Jul 2019

Module/Topic	Chapter	Events and Submissions/Topic

		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.
Report: Work on literature review		

Week 4 - 05 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Report: Work on research methodology		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 5 - 12 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Start thinking on how your results can be presented and analysed to make it useful to stakeholders.		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Vacation Week - 19 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Keep working on your project		

Week 6 - 26 Aug 2019

Module/Topic	Chapter	Events and Submissions/Topic
Report: Prepare preliminary results document		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 7 - 02 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Submit the preliminary results document. Report: Work on Results and discussion		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week. **Preliminary Results** Due: Week 7 Monday (2 Sept 2019) 11:45 pm AEST

Week 8 - 09 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Report: Work on Results and discussion		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 9 - 16 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Report: Work on Results and discussion		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 10 - 23 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic

Reflect on Stage One Competencies of Engineers Australia and write a reflective paper.
Prepare for the final project presentation. You should present to your supervisor during this week's meeting and seek their advice and guidance to improve.

Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 11 - 30 Sep 2019

Module/Topic	Chapter	Events and Submissions/Topic
Work on your thesis and presentation slides.		Meet with your advisor on a weekly basis and share your progress in the meeting. You are required to keep the meeting records and forward to your advisor after the meeting every week.

Week 12 - 07 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
Include reflective paper as Appendix 1 of the Thesis. Complete your thesis and submit.		**Reflective Paper** Due: Week 12 Friday (11 Oct 2019) 5:00 pm AEST **Implementation Thesis/Dissertation** Due: Week 12 Friday (11 Oct 2019) 5:00 pm AEST

Exam/Review week - 14 Oct 2019

Module/Topic	Chapter	Events and Submissions/Topic
		Presentation Due: Review/Exam Week Monday (14 Oct 2019) 9:00 am AEST

Assessment Tasks

1 Preliminary Results

Assessment Type
Report

Task Description
Prepare a document with your preliminary project results and discussion. Even though the result section carries higher marks, the document should include:

- Title page
- Abstract
- Keywords
- Introduction and Background
- Objective/s of Research
- Literature Review
- Methodology
- Results and Discussion
- Conclusion and Future Works
- List of References
- Appendix (if applicable)
- Responses to oral and written feedback, comments and advice given by reviewers in planning the term and by your advisor during this term

Assessment Due Date
Week 7 Monday (2 Sept 2019) 11:45 pm AEST

Return Date to Students
Week 9 Wednesday (18 Sept 2019)

Weighting
20%

Assessment Criteria
The extent to which:

- feedback, advice and comments are responded.
- project background and context are used to justify the project.
- literature is used to support the project.
- objectives are clearly outlined.
- appropriate methodology is used.
- preliminary results are correct and properly presented.
  The focus of this report is on preliminary results so the results section carries higher marks. Detailed assessment criteria will be available on the course website.

Referencing Style

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

Submission
Online

Submission Instructions
pdf file

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 Reflective Paper

Assessment Type
Essay

Task Description
This should be a short report reflecting your achievement of Engineers Australia Stage 1 Competencies. For each competency state whether you have attained that competency and reflect on how you have achieved (through unit activities, research project, internship, seminar etc.) that competency during your course. For any competencies, you have not attained, prepare a plan for achieving them. You are also required to include a short to medium term (2-5 years) plan for your professional development in your chosen profession.

Assessment Due Date
Week 12 Friday (11 Oct 2019) 5:00 pm AEST
Submit with the Final Thesis as Appendix 1.

Return Date to Students

Weighting
10%

Minimum mark or grade
50%

Assessment Criteria
The assessment will be evaluated based on the quality of the reflection that shows how you achieved Engineers Australia Stage 1 Competencies. Detailed assessment criteria will be available on the course website.

Referencing Style

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

3 Implementation Thesis/Dissertation

Assessment Type
Thesis/Dissertation

Task Description
This is your final version of the thesis and it is expected that all the feedback, advice and guidance are appropriately addressed. This is an opportunity to demonstrate your success and knowledge base of research within your chosen research area carried out over two terms. Your thesis should be structured as

* Title page
* Abstract
* Keywords
* Introduction and Background
* Objective/s of Research
* Literature Review
* Methodology
* Results and Discussion
* Conclusion and Future Works
* List of References
* Appendix 1: Reflective paper on EA Stage one Competencies
* Other Appendices as required.

Assessment Due Date
Week 12 Friday (11 Oct 2019) 5:00 pm AEST

Return Date to Students

After the certification of grades.

Weighting
50%

Minimum mark or grade
50%

Assessment Criteria
Assessment of the Implementation Thesis will be done based on the followings:

* Quality of individual chapters
* The comprehensiveness of the thesis

Detailed assessment criteria will be available on the course website.

Referencing Style

* [Harvard (author-date)](...)

Submission
Online

Submission Instructions
pdf

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 Presentation

Assessment Type
Presentation

Task Description
Prepare a ten-minute presentation to show your project findings followed by 5 minutes of Q&A session. This assessment generally cannot be rescheduled as this has to be delivered on a fixed date and location.

Assessment Due Date
Review/Exam Week Monday (14 Oct 2019) 9:00 am AEST
Exact schedule of presentation will be available on the course website.

Return Date to Students

Feedback on the presentations will be provided immediately after the presentation. No written feedback will be given.

Weighting
20%

Minimum mark or grade
50%

Assessment Criteria
This assessment will be evaluated based on the following criteria

- Accuracy and clarity of presentation slides
- Technical knowledge
- Oral communication
- Answer to the questions
- Overall quality of the presentation

Detailed assessment criteria will be available on the course website.

Referencing Style

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

Submission
No submission method provided.

Submission Instructions
Bring your presentation slides and deliver the presentation at your scheduled time.

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

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