



# **ENRP20001 *Engineering Research Project***

## ***Planning***

### **Term 2 - 2018**

Profile information current as at 19/05/2022 10:27 pm

All details in this unit profile for ENRP20001 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

## Unit Profile Correction added on 31-07-18

### Assessment Tasks:

#### Assessment 1. Project Proposal / Scope

##### Task Description:

After meeting(s) with your academic advisor and other project stakeholders where appropriate, prepare a project scope which includes the following sections:

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

Minimum Marks 50%

#### Assessment 2. Literature Review

##### Task Description:

After meeting(s) with your academic advisor and other project stakeholders where appropriate, prepare a literature review suitable for your project. The literature review requires you to find relevant sources of high quality and should drive the project methodology. You need to organise what you have read into themes and discuss the current state-of-the-art. Make sure the relevance to your project is clear. All sources used must be appropriately referenced, both in-text and in the Reference List.

##### Assessment Criteria:

- 1) Quality of sources;
- 2) Relevance to project
- 3) Synthesis of sources into forming methodology;
- 4) Formatting, spelling, grammar.

Submission: Online

#### Assessment 3. Presentation

##### Task Description:

You will present the Methodology to be used in the implementation phase of your project.

##### Assessment Criteria:

- 1) Technical correctness of methodology;
- 2) Realistic timeline;
- 3) Presentation skills - within 10 minutes, clarity of slides, and competence in answering questions.

#### Assessment 4. Planning Thesis

##### Task description:

Your Thesis should consist of the following sections:

- 1) Abstract;
- 2) Introduction;
- 3) Objective;
- 4) Literature Review;
- 5) Methodology based on literature review;
- 6) Planning Gantt chart;
- 7) Risk Assessment

Minimum Marks 50%.

##### Assessment Criteria:

- 1) Clarity of the scope, identification of stakeholders, inclusions and exclusions, introduction to topic and importance;
- 2) Quality of sources in final literature review;
- 3) Relevant of sources to project;
- 4) Synthesis of sources into forming methodology;
- 5) Technical correctness of methodology;
- 6) Realistic timeline;
- 7) Risk assessment;
- 8) Formatting, spelling and grammar.

## General Information

### Overview

This unit is specifically designed so that students can apply the processes of research investigation through the analysis of, reflection on and critique of, an area of their professional practice. The unit uses a problem-based learning approach within an authentic workplace learning environment. This ensures students are undertaking an investigation that is relevant to the needs of industry. Students will apply an appropriate research methodology that suits their research problem. At the end of this unit, students will have developed a project plan that they will implement in the follow-on unit Engineering Research Project Implementation.

### 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

Students must have completed a minimum of 36 credit points and approval of head of course or delegate is required. Students must have a project topic and academic supervisor before they can be enrolled.

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: 10%

#### 2. **Literature Review or Systematic Review**

Weighting: 20%

#### 3. **Presentation**

Weighting: 20%

#### 4. **Portfolio**

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 Unit Coordinator

**Feedback**

Due to significant increase in enrollments it was hard to find projects for all students.

**Recommendation**

Work with supervisors and Discipline Leaders to develop enough projects prior to start of term. Encourage students to develop their own project topics.

#### Feedback from Unit Evaluation: Students

**Feedback**

Some students prefer to develop their own project topics.

**Recommendation**

Support students to develop suitable projects.

#### Feedback from Unit Evaluation: Students

**Feedback**

Students did not receive the support expected from the supervisors.

**Recommendation**

Academic Supervisors and students will be encourage to have regular meetings.

## Unit Learning Outcomes

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

1. Identify a suitable problem related to the study discipline
2. Develop a research question including identifying key words
3. Conduct an indepth review of related literature
4. Select an appropriate research methodology to investigate the problem
5. Regularly communicate professionally with all stakeholders in formal and informal reports
6. Professionally present the project plan in a seminar and defend the methodology adopted.

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
<b>1 - Report - 10%</b>	•	•				
<b>2 - Literature Review or Systematic Review - 20%</b>			•			
<b>3 - Presentation - 20%</b>				•		•

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
4 - Portfolio - 50%	•	•	•	•	•	

### 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 - 10%	○	○	○	○				
2 - Literature Review or Systematic Review - 20%	○	○		○				
3 - Presentation - 20%	○	○	○	○		○		
4 - Portfolio - 50%	○	○	○	○		○		

## Textbooks and Resources

### Textbooks

ENRP20001

#### 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 book is also available in Kindle edition. However, paper copies are still available at the CQUni Bookshop [here](#).

### 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](mailto:a.mazid@cqu.edu.au)

## Schedule

#### **Week 1: Enrolment and Research Project Selection - 09 Jul 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Unit overview, enrolment requirement, on-going assignment, Choosing a project and supervisor		

#### **Week 2: Research Topic Selection - 16 Jul 2018**

Module/Topic	Chapter	Events and Submissions/Topic
Finalise research topic selection. What is Research? Purpose of Research, Essential Aspects of Research, Scope of ENRP20001 and ENRP20003.		

#### **Week 3: Research Project Proposal - 23 Jul 2018**

Module/Topic	Chapter	Events and Submissions/Topic
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Major Types of Research, Research Proposal Content and Preparation, Examples

#### **Week 4: Research Proposal (Contd.) - 30 Jul 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Research Project Proposal Preparation, Literature Review, Referencing Style, Content of Research Proposal, Examples of Research Proposals		Research Proposal Due: Week 4 Thursday (02 August 2018) 11:45 PM AEST (Worth 10%)  <b>Project Proposal / Scope - 10%</b> Due: Week 4 Thursday (2 Aug 2018) 11:45 pm AEST

#### **Week 5: Literature Review Technique - 06 Aug 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Review of Engineering Databases: types of documents, peer reviewed conferences, journals, books, standards. Quality of Referencing		

#### **Vacation Week - 13 Aug 2018**

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

#### **Week 6: Literature Review (Contd.) - 20 Aug 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Typical Content of Literature Review, Typical Content of a Thesis, Examples. Research Methodology		Draft Literature Review Due: Week 6 Friday (24 August 2018) 11:45 PM AEST (Worth 20%)  <b>Literature Review - 20%</b> Due: Week 6 Friday (24 Aug 2018) 11:45 pm AEST

#### **Week 7: Methodology Development - 27 Aug 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Writing Draft Methodology, Content of it, Effective Presentation Technique. Guest Lecture on Referencing Styles		

#### **Week 8: Research Project Planning - 03 Sep 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Research Activities and Gantt Chart		

#### **Week 9: Review of Draft Methodology - 10 Sep 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Content and Examples of Draft Methodology, Examples		Draft Methodology Due: Week 9 Thursday (13 September 2018) 11:45 PM AEST (Worth 20%)  <b>Presentation - 20%</b> Due: Week 9 Wednesday (12 Sept 2018) 11:45 pm AEST

#### **Week 10: Methodology Presentation - 17 Sep 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
Draft Methodology Presentation Sessions		

#### **Week 11: Thesis Planning - 24 Sep 2018**

<b>Module/Topic</b>	<b>Chapter</b>	<b>Events and Submissions/Topic</b>
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Planning Thesis Content, Preparation and Examples

### Week 12: Planning Portfolio Submission - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
Review of Draft Portfolio, Review of Overall Progress Submit your Planning Portfolio (Planning Thesis, Methodology Presentation Document)		Planning Portfolio Due: Week 12 Friday (05 October 2018) 11:45 PM AEST (Worth 50%)  <b>Planning Thesis - 50% Due:</b> 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 ENRP20001		

### Exam Week - 15 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic
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## Term Specific Information

You need to have found a Supervisor and Project Topic BEFORE enrolment is approved. A list of projects has been circulated and is available at [https://drive.google.com/open?id=1aU6\\_Y6CsenKa-9OnXKL6ZXBlqWh\\_wg1B210HxZofjuc](https://drive.google.com/open?id=1aU6_Y6CsenKa-9OnXKL6ZXBlqWh_wg1B210HxZofjuc)

## Assessment Tasks

### 1 Project Proposal / Scope - 10%

#### Assessment Type

Report

#### Task Description

Appropriateness and clarity of the proposal, basic understanding of the problem by the way of findings in literature, rational, stakeholders, and the deliverables. Lecture will be given on scoping and it is crucial that you attend.

#### Assessment Due Date

Week 4 Thursday (2 Aug 2018) 11:45 pm AEST

#### Return Date to Students

Week 5 Friday (10 Aug 2018)

#### Weighting

10%

#### Assessment Criteria

1. Appropriateness and clarity of the proposal, basic understanding of the problem by the way of findings in literature, rational, stakeholders, and the deliverables. Lecture will be given on scoping and it is crucial that you attend.

#### Referencing Style

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

#### Submission

Online

#### Learning Outcomes Assessed

- Identify a suitable problem related to the study discipline
- Develop a research question including identifying key words

## Graduate Attributes

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

## 2 Literature Review - 20%

### Assessment Type

Literature Review or Systematic Review

### Task Description

Conduct an indepth review topic related literature

### Assessment Due Date

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

### Return Date to Students

Week 8 Friday (7 Sept 2018)

### Weighting

20%

### Assessment Criteria

### Referencing Style

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

### Submission

No submission method provided.

### Learning Outcomes Assessed

- Conduct an indepth review of related literature

## Graduate Attributes

- Knowledge
- Communication
- Research

## 3 Presentation - 20%

### Assessment Type

Presentation

### Task Description

Prepare PowerPoint presentation document, presentation time is 10 mins and 2 mins for questions and answers.

### Assessment Due Date

Week 9 Wednesday (12 Sept 2018) 11:45 pm AEST

### Return Date to Students

Week 10 Wednesday (19 Sept 2018)

### Weighting

20%

### Assessment Criteria

### Referencing Style

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

### Submission

Online

### Learning Outcomes Assessed

- Select an appropriate research methodology to investigate the problem

- Professionally present the project plan in a seminar and defend the methodology adopted.

### **Graduate Attributes**

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

## **4 Planning Thesis - 50%**

### **Assessment Type**

Portfolio

### **Task Description**

Follow content of a typical planning thesis provided

### **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**

### **Referencing Style**

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

### **Submission**

Online

### **Learning Outcomes Assessed**

- Identify a suitable problem related to the study discipline
- Develop a research question including identifying key words
- Conduct an indepth review of related literature
- Select an appropriate research methodology to investigate the problem
- Regularly communicate professionally with all stakeholders in formal and informal reports

### **Graduate Attributes**

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