ENAG12002 *Engineering Associate Project*
Term 2 - 2020

Profile information current as at 12/10/2024 07:41 pm

All details in this unit profile for ENAG12002 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
In this unit, students will apply the knowledge and skills they have developed throughout their Associate Degree to a capstone project. They will manage the project, identify and apply required technical knowledge, develop a project problem definition from a loosely formed client brief and produce detail drawings and documentation. Students will demonstrate a systems approach to design activities incorporating sustainability principles. They will also review the conduct and management of engineering enterprises based on personal work experience and reflect on the engineering design process and project management and their role in it. They will operate in an ethical manner, communicate effectively and provide evidence of professional conduct and a commitment to lifelong learning. Note: Students must have completed minimum of 6 weeks work experience in an engineering para-professional role or carry out an industry-based project in order to be eligible for a passing grade in this unit.

Details
Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *12*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.25*

Pre-requisites or Co-requisites
Students must have completed 72 credit points.
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 - 2020

- Online

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. **Portfolio**
Weighting: 100%

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

Feedback
Unit is designed in such a way that it will push to think outside the box and to learn to manage projects on a strict timeline.

Recommendation
Ways for improving the unit content will be explored and implemented.

Feedback from Unit Evaluation, Class discussion.

Feedback
Students would like to have more pieces of assessments over the term rather 100% portfolio.

Recommendation
More pieces assessments will be incorporated such as project proposal, literature review and project methodology.

Feedback from Unit Evaluation

Feedback
Regular ZOOM sessions providing guidance in the project report will be useful.

Recommendation
Regular weekly ZOOM sessions will be conducted.

Feedback from Class discussion.

Feedback
Project idea selection takes a considerable amount of time which delays the start of the project.

Recommendation
The Unit Coordinator needs to discuss potential project ideas and scope individually with each student in 'o' week or week 1 to ease the project selection process.

Feedback from Class discussion.

Feedback
More resources for literature review, methodology development, project schedule and the final report will be helpful.

Recommendation
More resources for the literature review, methodology development, project schedule and final report need to be provided.

Unit Learning Outcomes

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

1. Apply the techniques of project management to planning and design of an engineering project
2. Identify, justify and apply the technical knowledge and skills required to develop a project specification and design
3. Develop a project problem definition and conceptual design consistent with Australian Standards and current engineering practice from a loosely formed client brief
4. Produce detail drawings and documentation for an engineering project using common drafting practices and Australian and industry standards appropriate to discipline
5. Demonstrate a systems approach to design activities incorporating sustainability principles
6. Review and discuss the conduct and management of engineering enterprises and the structure and capabilities of the engineering workforce based on personal work experience
7. Reflect on the engineering design process and project management, your role as a designer both as an individual and as a team member, and the role of other stakeholders in these processes
8. Provide evidence of ethical conduct, effective oral and written communication, professional conduct as a member of a peer learning team and a commitment to life-long learning

This unit assists students to develop the Engineers Australia Stage 1 Competencies for Engineering Associates.
Knowledge and Skill Base: Learning Outcomes 2, 3, 4, 5 and 6 assist development of Elements 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6
Engineering Professional Ability: Learning Outcomes 1, 3, 4, 5 and 6 assist development of Elements 2.1, 2.2, 2.3 and 2.4
Professional and Personal Attributes: Learning Outcomes 1, 4, 5, 6, 7 and 8 assist development of Elements 3.1, 3.2, 3.3, 3.4, 3.5 and 3.6

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	7	8
1 - Portfolio - 100%	•	•	•	•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes							
	1	2	3	4	5	6	7	8
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 - Portfolio - 100%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

There are no required textbooks.

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

Ramadas Narayanan Unit Coordinator
r.narayanan@cqu.edu.au

Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Zoom Collaborate Session - 2 hour - TBA 1. Introduction to the unit 2. Overview of Engineering Projects 3. Developing Project aim and Objectives 4. Expectations - Are you biting off more than you can chew? 5. Identify any IP/Confidentiality issues	Refer to Lecture Slides and information in Week 1 block in unit Moodle site	Event 1 (E1): Read the unit profile thoroughly and understand what is required of you to successfully complete this unit. E2: Consider the type of project work you need to undertake to achieve the learning outcomes of this unit. E3: Begin preliminary project proposal - 2 pages (max)

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic

Zoom Collaborate Session - 2 hour - TBA 1. Tips to conducting literature reviews 2. Project Methodology - Exploring the options 3. Work Breakdown Structure 4. Project Planning - The Timeline	Refer to Lecture Slides and information in Week 2 block in unit Moodle site	E3 (cont): Develop a 2 page project proposal and spell out the project aim and objectives and expected outcomes. Write a 1 page summary on how your project will help you achieve the learning outcomes of this unit. E4: Identify any IP/Confidentiality issues in your project. Get all parties to sign Non-Disclosure Agreements where applicable. Submission (S1): 2 page project proposal and 1 page summary on achieving LOs Due date Friday 24/07/20 @ 17:00 Where applicable, all NDAs have to signed by relevant stakeholders before the transmission/sharing of any sensitive information. A copy of the NDA can be downloaded via the Unit Moodle site.

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Zoom Collaborate Session - 2 hour - TBA Project work commences Literature Review • Information Retrieval & Processing	Refer to Lecture Slides and information in Week 3 block in unit Moodle site	Return of Approved Submission 1 E5: • Develop Project Methodology • Estimate the resources you need • Engineering/technical skills audit Develop a justification for the proposed methodology E6: Have you considered the resources you need to carry out the project? E7: Analyse the engineering/technical skills you need to apply to realise your project objectives S2: Submit draft Project Plan. Include a Gantt Chart. Due date Friday 31/7/20 @ 17:00

Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Literature Review continues Project work continues		E8: Commence developing Chapter 2 Literature Review. Depending on your project topic and scope, this chapter can be anything from 10 to 25 pages. E9: Get a grip on citation and referencing styles. Harvard style is preferred.

Week 5 - 10 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Literature Review continues Project work continues		E10: Revise/review the proposed Project Methodology you will use in your project. This will constitute Chapter 3 of your project report. S3: Submit a draft methodology Due date Friday 14/08/20 @ 17:00

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Project work continues		

Week 7 - 31 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Project work continues		S4: Draft Literature Review Due date Friday 04/09/20 @ 17:00

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Project work continues		

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Project work continues		

Week 10 - 21 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Project work continues		S5: Submit draft project report Due date Friday 25/09/20 @ 17:00

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Portfolio finalization commences		

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Portfolio finalization commences		

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Portfolio finalization commences		

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Submit Portfolio 1. Project Report 2. Video Presentation 3. Reflective Journal		Thesis Portfolio

Assessment Tasks

1 Thesis Portfolio

Assessment Type
Portfolio

Task Description
Your Portfolio will comprise the following compulsory items in this unit:

1. Project Report (learning outcomes, LO1-5)
2. Video Presentation (10 minutes, LO8)
3. Reflective paper on project planning and management process (LO6)
4. Reflective paper on engineering practice as defined in learning outcomes (LO 6, 7, 8)

Please refer to the unit Moodle site for detailed information on the above 4 submissions.

Assessment Due Date

See Moodle for detail

Return Date to Students

The results will be officially declared through the University

Weighting
100%

Minimum mark or grade
50

Assessment Criteria
The following assessment criteria shall apply (refer to the unit Moodle site for a comprehensive guide to the assessment criteria):

1. Project Report (80% Weighting) - the report captures all the elements of the work that has been undertaken during the term. It is presented in the prescribed format and follows all relevant guidelines as stipulated in the Assessment Criteria Document on the unit Moodle site.
2. Video Presentation (10% Weighting) - the 10 minute video will summarize the project work - aims & objectives, approach and methodology, main results and outcomes achieved. It will conclude with your comment on how you think you have achieved the LOs in this unit.
3. Reflective Journals (10% Weighting) - the journal will describe how you have attained each of the learning outcome in this unit with appropriate reflections your experiences in the term.

Refer to the Unit Moodle site for more details about the Assessment Criteria.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
Use the submission links on the Unit Moodle site

assessmentOutcome

- Apply the techniques of project management to planning and design of an engineering project
- Identify, justify and apply the technical knowledge and skills required to develop a project specification and design
- Develop a project problem definition and conceptual design consistent with Australian Standards and current engineering practice from a loosely formed client brief
- Produce detail drawings and documentation for an engineering project using common drafting practices and Australian and industry standards appropriate to discipline
- Demonstrate a systems approach to design activities incorporating sustainability principles

- Review and discuss the conduct and management of engineering enterprises and the structure and capabilities of the engineering workforce based on personal work experience
- Reflect on the engineering design process and project management, your role as a designer both as an individual and as a team member, and the role of other stakeholders in these processes
- Provide evidence of ethical conduct, effective oral and written communication, professional conduct as a member of a peer learning team and a commitment to life-long learning

assessmentGradAttribute

- 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