ENTG13002 *Engineering Technology Project Planning*

Term 2 - 2020

Profile information current as at 12/10/2024 01:49 pm

All details in this unit profile for ENTG13002 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

As a student in the final year of your Bachelor of Engineering Technology 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 engineering technologists. 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 successfully completed all nominal prior units in the course.

Details

Career Level: *Undergraduate*
Unit Level: *Level 3*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites

96 unit 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

- Bundaberg
- Cairns
- Gladstone
- Mackay
- Online
- 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: 10%
3. **Written Assessment**
Weighting: 10%
4. **Written Assessment**
Weighting: 70%

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 Satisfaction Survey

Feedback
Academic advisers facilitate students to complete projects to a high standard.

Recommendation
Academics will be encouraged to continue helping their students.

Feedback from Student Satisfaction Survey

Feedback
The weekly Zoom sessions and recordings were useful to obtain assistance and to stay on track with the project

Recommendation
Weekly Zoom sessions should be maintained to allow students and staff to discuss project matters promptly.

Feedback from Student Satisfaction Survey

Feedback
The assessment instructions are too vague, which makes it difficult for students and Academic Advisers to achieve the expectations.

Recommendation
Assessment rubrics should be created to articulate the expectations at various levels of achievement clearly.

Feedback from Student Satisfaction Survey

Feedback
The unit coordinator needs to be more accessible to students, to ensure timely guidance and resolution of project issues.

Recommendation
The unit coordinator should be more flexible with their availability to project students.

Unit Learning Outcomes

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

1. Apply and reflect on Engineers Australia's Stage One Competencies for Engineering Technologists with respect to the planning and implementation phases of engineering projects
2. Prepare a project scope that includes a project definition, identification of project stakeholders and expected timing of milestones and deliverables
3. Research critical areas of your project by evaluating and extracting information from reputable sources and relevant authorities
4. Identify the tasks required for the implementation phases, including the application of appropriate technical capabilities 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 Engineering Technologists 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 - 10%	•	•	•	•	•	•	•	•		
3 - Written Assessment - 10%	•	•	•	•	•	•	•	•		
4 - Written Assessment - 70%	•	•	•	•	•	•	•	•		

Textbooks and Resources

Textbooks

ENTG13002

Prescribed

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: 978-0-9857544-1-9
Binding: Paperback

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
- Webcam and headset for on-line sessions.
- 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

Benjamin Taylor Unit Coordinator
ben.taylor@cqu.edu.au

Schedule

Week 1 - 13 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Choose a project and academic advisor. Commence researching your project. Schedule regular meetings with your academic (and industry) advisor(s).		Share progress with advisor(s).

Week 2 - 20 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic

Start preparing your project introduction. There is a template and guidance in Moodle.		Share progress with advisor(s).

Week 3 - 27 Jul 2020

Module/Topic	Chapter	Events and Submissions/Topic
Invite your academic advisor to formally provide advice by submitting your project introduction. Add the CQU Engineering Showcase into your diary for Wednesday afternoon of week 12.		Share progress with advisor(s). **Project Introduction** Due: Week 3 Monday (27 July 2020) 9:00 am AEST

Week 4 - 03 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Your literature review forms the majority of your next assessment item. There are some useful resources in Moodle to guide you on your literature review.		Share progress with advisor(s).

Week 5 - 10 Aug 2020

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

Vacation Week - 17 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Check Moodle for guidance on your literature review.		Share progress with advisor(s).

Week 6 - 24 Aug 2020

Module/Topic	Chapter	Events and Submissions/Topic
Invite your academic advisor to formally provide advice by submitting your literature review.		Share progress with advisor(s). **Literature Review & Updated Project Introduction** Due: Week 6 Monday (24 Aug 2020) 9:00 am AEST

Week 7 - 31 Aug 2020

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

Week 8 - 07 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Check Moodle for guidance on your proposed project methodology.		Share progress with advisor(s).

Week 9 - 14 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Invite your academic advisor to formally provide advice by submitting your proposed project methodology.		Share progress with advisor(s). **Proposed Project Methodology & Updated Literature Review** Due: Week 9 Monday (14 Sept 2020) 9:00 am AEST

Week 10 - 21 Sep 2020

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

Week 11 - 28 Sep 2020

Module/Topic	Chapter	Events and Submissions/Topic
Check Moodle for guidance on your proposal. Check that the CQU Engineering Showcase is in your diary for Wednesday afternoon of next week. Think about what criteria you will use to review the presentations.		Share progress with advisor(s).

Week 12 - 05 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Check Moodle for guidance on your proposal and presentation reviews.		Attend the CQU Engineering Showcase and professionally review five presentations. Share progress with advisor(s).

Review/Exam Week - 12 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic
Submit your proposal for assessment.		**Project Proposal** Due: Review/Exam Week Monday (12 Oct 2020) 9:00 am AEST

Exam Week - 19 Oct 2020

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Project Introduction

Assessment Type
Written Assessment

Task Description
After meeting(s) with your academic advisor and other project stakeholders where appropriate, prepare a project introduction 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
5. Annotated bibliography (at least five relevant journal articles required)

If you need further guidance then check in Moodle and /or ask questions in the Q&A forum.
No extensions are possible past 9 a.m. on Monday of week four. If you are unable to submit by 9 a.m. on Monday of week four then it is highly unlikely that you will be successful in this unit and you are advised to withdraw by census date (Tuesday of week four) and re-enrol in the next term of offering.

Assessment Due Date
Week 3 Monday (27 July 2020) 9:00 am AEST

Return Date to Students
Week 5 Monday (10 Aug 2020)

Weighting
10%

Minimum mark or grade
25%

Assessment Criteria
Accuracy and clarity of written document.
Appropriateness of project introduction.
Quantity, quality and reliability of references used for annotated bibliography.
Performance guidelines for the assessment criteria will be available in Moodle.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

assessmentOutcome

- Prepare a project scope that includes a project definition, identification of project stakeholders and expected timing of milestones and deliverables

assessmentGradAttribute

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

2 Literature Review & Updated Project Introduction

Assessment Type
Written Assessment

Task Description
Update your project introduction using the feedback from your academic advisor.
Prepare a literature review, including at least 10 relevant journal articles, suitable for your project in consultation with your academic advisor and other project stakeholders.
Check Moodle for further guidance, especially the CQU Library guide for Literature Reviews. For further guidance ask questions in the Q&A forum.

Assessment Due Date
Week 6 Monday (24 Aug 2020) 9:00 am AEST

Return Date to Students
Week 8 Monday (7 Sept 2020)

Weighting
10%

Minimum mark or grade
25%

Assessment Criteria
Quality of updates to project introduction based on feedback given.
Accuracy and clarity of written document.
Quantity, quality and reliability of references used for literature review.
Critical assessment of the accuracy and reliability of information.
Performance guidelines for the assessment criteria will be available in Moodle.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

assessmentOutcome

- Research critical areas of your project by evaluating and extracting information from reputable sources and relevant authorities

assessmentGradAttribute

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

3 Proposed Project Methodology & Updated Literature Review

Assessment Type
Written Assessment

Task Description
Update your literature review using the feedback from your academic advisor.
Prepare a proposed project methodology that will help you achieve the deliverables of your project in consultation with your academic advisor and other project stakeholders.
Check Moodle for further resources and guidance. Ask questions in the Q&A forum if necessary.

Assessment Due Date
Week 9 Monday (14 Sept 2020) 9:00 am AEST

Return Date to Students
Week 11 Monday (28 Sept 2020)

Weighting
10%

Minimum mark or grade
25%

Assessment Criteria
Quality of updates to literature review based on feedback given.
Accuracy and clarity of written document.
Attainability of project methodology.
Performance guidelines for the assessment criteria will be available in Moodle.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

assessmentOutcome

- Identify the tasks required for the implementation phases, including the application of appropriate technical capabilities developed in preceding units of study, and integration with new capabilities necessary to form a comprehensive project plan

assessmentGradAttribute

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

4 Project Proposal

Assessment Type
Written Assessment

Task Description
Prepare a project proposal which justifies the continuation of your project into the implementation phases. Using Engineers Australias' Stage One Competencies professionally review at least five presentations from the CQU Engineering Showcase on Wednesday of week 12, 1-5 p.m. (QLD time). Include your reviews in the first appendix.
Your Project Proposal will be structured as follows:

- Title Page
- Summary
- Acknowledgments
- Table of Contents
- List of Figures
- List of Tables
- Glossary/Nomenclature
- Introduction to the Project and Proposal
- Literature Review
- Proposed Project Methodology
- Proposed Implementation Plan
- Risk Assessment
- Conclusion
- References
- Appendix 1 - Professional Reviews
- Other appendices as appropriate (please note that other appendices will not be graded)

Further guidance and resources are in Moodle.

Assessment Due Date
Review/Exam Week Monday (12 Oct 2020) 9:00 am AEST

Return Date to Students

At certification of grades

Weighting
70%

Minimum mark or grade
50%

Assessment Criteria
Accuracy and clarity of written document.
Appropriateness of project proposal.
Attainability of project methodology.
Likelihood of project success.
Appropriateness of professional reviews.
Critical assessment of the accuracy and reliability of information.
Performance standards for the assessment criteria will be available in Moodle.

Referencing Style

- Harvard (author-date)
- Turabian

Submission
Online

assessmentOutcome

- Apply and reflect on Engineers Australia's Stage One Competencies for Engineering Technologists with respect to the planning and implementation phases of engineering projects
- Prepare a project scope that includes a project definition, identification of project stakeholders and expected timing of milestones and deliverables
- Research critical areas of your project by evaluating and extracting information from reputable sources and

relevant authorities
- Identify the tasks required for the implementation phases, including the application of appropriate technical capabilities 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.

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