



ENTG13001 Engineering Technology Project Implementation

Term 2 - 2024

Profile information current as at 12/07/2025 05:28 pm

All details in this unit profile for ENTG13001 have been officially approved by CQUUniversity 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 manage and implement a project (planned in ENTG13002) that allows you to demonstrate professional capabilities expected of graduating engineering technologists. You will work and learn autonomously, communicate progress and prepare reports and presentations. You will conduct research to support your project decision-making, and you are required to demonstrate critical thinking and document sound analysis and judgement in project working documents and final reporting. You will solve technical problems that arise and evaluate project processes, outcomes and related learning experiences, and you will prepare a formal report, poster, and project presentation. Note that if you completed the prerequisite Planning unit more than two terms ago then you need to check with your academic adviser to see if the project is still available.

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

Pre-requisite: ENTG13002 Engineering Technology 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 - 2024

- Bundaberg
- Cairns
- Gladstone
- Mackay
- Mixed Mode
- 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. **Presentation**

Weighting: 10%

2. **Written Assessment**

Weighting: 10%

3. **Written Assessment**

Weighting: 10%

4. **Presentation**

Weighting: 10%

5. **Thesis/Dissertation**

Weighting: 60%

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 Class feedback and UC reflections

Feedback

Students appreciate the evening weekly Zoom open discussion sessions.

Recommendation

Continue to offer weekly evening Zoom sessions combined with thesis planning and implementation students to create a supportive environment for delivering the honours projects.

Feedback from UC Reflections

Feedback

Strengthen student self-assessment of project alignment to the UN Sustainable Development Goals.

Recommendation

Revise the marking rubric to encourage students to align their project to specific targets within the UN Sustainable Development Goals Framework.

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 to the planning and implementation phases of engineering projects
2. Implement the project plan prepared in the Planning unit in consultation with and guidance from your project adviser(s)
3. Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project
4. Communicate preliminary results to project adviser(s) promptly to solicit timely and constructive feedback
5. Prepare professional project documents that convey the processes and outcomes of your project
6. Communicate your project outcomes to project adviser(s), other stakeholders and the wider community.

The Learning Outcomes for this unit are linked with the Engineers Australia Stage 1 Competency Standards for the Engineering Technologist in the areas of 1. Knowledge and Skill Base, 2. Engineering Application Ability and 3. Professional and Personal Attributes at the following levels:

Advanced 1.1 Systematic, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the technology domain. (LO: 1A 2A 3A 4A 5A) 1.2 Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the technology domain. (LO: 1A 2A 3A 4A 5A) 1.3 In-depth understanding of specialist bodies of knowledge within the technology domain. (LO: 1A 2A 3A 4A 5A) 1.4 Discernment of knowledge development within the technology domain. (LO: 1A 2A 3A 4A 5A) 1.5 Knowledge of engineering design practice and contextual factors impacting the technology domain. (LO: 1A 2A 3A 4A 5A) 1.6 Understanding of the scope, principles, norms, accountabilities and bounds of sustainable engineering practice in the technology domain. (LO: 1A 2A 3A 4A 5A) 2.1 Application of established engineering methods to broadly-defined problem solving within the technology domain. (LO: 1A 2A 3A 4A 5A) 2.2 Application of engineering techniques, tools and resources within the technology domain. (LO: 1A 2A 3A 4A 5A) 2.3 Application of systematic synthesis and design processes within the technology domain. (LO: 1A 2A 3A 4A 5A) 2.4 Application of systematic approaches to the conduct and management of projects within the technology domain. (LO: 1A 2A 3A 4A 5A) 3.1 Ethical conduct and professional accountability. (LO: 1A 2A 5A) 3.2 Effective oral and written communication in professional and lay domains. (LO: 1A 2A 3A 4A 5A) 3.3 Creative, innovative and pro-active demeanour. (LO: 1A 2A 3A 4A 5A) 3.4 Professional use and management of information. (LO: 1A 2A 3A 4A 5A) 3.5 Orderly management of self, and professional conduct. (LO: 1A 2A 3A 4A 5A) 3.6 Effective team membership and team leadership. (LO: 1A 2A 3A 5A)

Note: LO refers to the Learning Outcome number(s) which link to the competency and the levels: N - Introductory, I - Intermediate and A - Advanced.














































Refer to the Engineering Undergraduate Course Moodle site for further information on the Engineers Australia's Stage 1 Competency Standard for Professional Engineers and course level mapping information <https://moodle.cqu.edu.au/course/view.php?id=1511>



Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
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						

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)
- 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 style: [Harvard \(author-date\)](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Nur Hassan Unit Coordinator
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Schedule

Week 1 - Reconnect - 08 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Reconnect with your Advisor/s	Objective: Organise fortnightly meetings with Advisor/s for the term	Read the Marking Rubric Meet with your Advisor/s Complete the Progress Update form

Week 2 - Consolidate - 15 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Consolidate reviewers' feedback and consider actions	Objective: Tabulate all feedback to record responses against all items	Project Update Presentation: Nominate your session time for Week 4

Week 3 - Manage - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Manage scope change in consultation with Advisor/s	Objective: With your Advisor/s, decide the best course of action to satisfy reviewers' feedback	Meet with your Advisor/s Complete the Progress Update form

Week 4 - Share - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Share post-planning progress and solicit feedback	Objective: Demonstrate constructive responses to the reviewer's feedback and suitable progress in the early implementation phase	Project Update Presentation: Present during your allocated session.

Week 5 - Implement - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Implement project methods (ongoing throughout the term)	Objective: Complete the set tasks following your schedule and check in with your Advisor/s on delivering your project	Meet with your Advisor/s Complete the Progress Update form

Vacation Week - 12 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Catch up and enjoy a short break	Catch up and enjoy a short break	Catch up and enjoy a short break

Week 6 - Analyse - 19 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Analyse initial outcomes for compliance with stated deliverables	Objective: Take a moment to ensure you are tracking towards reasonable project outcomes	Thesis Presentation: Nominate your campus for the Engineering Showcase in Week 12

Week 7 - Refine - 26 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Refine your project to achieve practical completion	Objective: Reassess the path to completion with your Advisor/s and make scope or schedule changes as necessary	Meet with your Advisor/s Complete the Progress Update form

Week 8 - Deliver - 02 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
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Deliver key project outcomes and begin wrapping up methods

Objective: Take a results-orientated approach to achieve key outcomes

Preliminary Results Due: Week 8
Wednesday (4 Sept 2024) 11:45 pm
AEST

Week 9 - Verify - 09 Sep 2024

Module/Topic

Verify project aim and objectives will be met

Chapter

Objective: Evaluate attainment of the project with your Advisor/s

Events and Submissions/Topic

Meet with your Advisor/s
Complete the [Progress Update form](#)

Week 10 - Decide - 16 Sep 2024

Module/Topic

Decide on producing a conference poster or paper

Chapter

Objective: Choose the best method to briefly convey your project

Events and Submissions/Topic

Thesis presentation: Confirm your allocated session time for Week 12.

Week 11 - Compile - 23 Sep 2024

Module/Topic

Compile a conference poster or paper and your reflections on attaining Engineers Australia's Stage One Competencies.

Chapter

Objective: Seek your Advisor/s' feedback on drafts for the Engineering Showcase

Events and Submissions/Topic

Meet with your Advisor/s
Complete the final [Progress Update form](#)

Project Poster or Conference Paper Due: Week 11 Wednesday (25 Sept 2024) 11:45 pm AEST

Week 12 - Present - 30 Sep 2024

Module/Topic

Present Thesis outcomes

Chapter

Objective: Confidently present your thesis and celebrate your project

Events and Submissions/Topic

Thesis Presentation: Present during your allocated session in the program.

Review/Exam Week - Finalise - 07 Oct 2024

Module/Topic

Finalise your Engineering Thesis

Chapter

Objective: Seek final feedback and assistance from your Advisor/s

Events and Submissions/Topic

Meet with your Advisor/s

Thesis Due: Review/Exam Week
Wednesday (9 Oct 2024) 11:45 pm
AEST

Exam Week - 14 Oct 2024

Module/Topic

Chapter

Events and Submissions/Topic

Assessment Tasks

1 Project Update Presentation

Assessment Type

Presentation

Task Description

Prepare a ten-minute presentation which updates your Academic Advisor and other academics on your project progress. Further guidance to the required content of your presentation is in Moodle.

Presentations are via Zoom software only (i.e. no on-campus presentations). If you are not familiar with Zoom software then please ensure you do familiarise yourself with Zoom software before this date. Ensure you are located somewhere with a good internet connection so we can see you as well as your presentation slides. Be prepared to answer questions about your project and take further advice and guidance from the audience.

Presentations are planned for Wednesday Week 4, in the afternoon and evening. Refer to Moodle for the final schedule.

Preference to the evening time slot is given to students enrolled in distance mode. Please add your name to your preferred time within the spreadsheet at the link to the proposed schedule in Moodle. Please note that access to the spreadsheet is by using your CQU email address and password (not your personal Gmail account).

You are expected to watch the other presentations in your session so you can learn about presenting projects more effectively from the feedback and comments that other students receive.

Assessment Due Date

Present on Wednesday of Week 4 during your allocated session in the program.

Return Date to Students

Advice and guidance will be given verbally immediately after your presentation. Please take your own notes.

Weighting

10%

Minimum mark or grade

25%

Assessment Criteria

Presentations are marked on a five-point scale from Unacceptable to Excellent or Strongly Disagree to Strongly Agree. The criteria are:

- Progress is on time and the schedule is sensible (formative)
- The adopted methodology is appropriate and achievable (formative)
- The quality of work meets the graduate standard (formative)
- The presentation delivery was concise and confident (formative)
- The presentation was on time, and time was used well (formative)
- Responses to questions were concise, confident and accurate – optional – (formative)
- The overall grade based on scores for all formative criteria and any academic judgements (**summative**)

Referencing Style

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

Submission

Online

Submission Instructions

Please submit your PowerPoint prior to your session to facilitate solving any issues through Zoom.

Learning Outcomes Assessed

- Implement the project plan prepared in the Planning unit in consultation with and guidance from your project adviser(s)
- Communicate preliminary results to project adviser(s) promptly to solicit timely and constructive feedback

2 Preliminary Results

Assessment Type

Written Assessment

Task Description

Prepare a draft Thesis comprising updated chapters from your Project Proposal and your preliminary results. Check Moodle and the Q&A Forum for further assessment advice.

Assessment Due Date

Week 8 Wednesday (4 Sept 2024) 11:45 pm AEST

Return Date to Students

Academic Advisors will endeavor to provide feedback within 2 weeks of the due date for on-time submissions.

Weighting

10%

Minimum mark or grade

25%

Assessment Criteria

Refer to the Marking Rubric for indicators of attainment for the assessment criteria:

- Planning feedback discussion (conducted through project meetings)
- Planning feedback application
- Thesis preparation

- Project progress
- Methodology
- Analysis of data and information
- Presentation of results
- Discussion of results
- Project management (based on progress updates submitted and regular project meetings)

Referencing Style

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

Submission

Online

Submission Instructions

Submit a single document.

Learning Outcomes Assessed

- Implement the project plan prepared in the Planning unit in consultation with and guidance from your project adviser(s)
- Communicate preliminary results to project adviser(s) promptly to solicit timely and constructive feedback

3 Project Poster or Conference Paper

Assessment Type

Written Assessment

Task Description

You must decide to prepare either a portrait poster (A1 size) suitable for display at a technical conference, or a Conference Paper (maximum 6 pages). Your submission will be shared with all engineering academics, project students, and attendees of the Engineering Showcase via a link on the program. Delayed submissions may not be linked to in the program.

Posters provide a highly visual summary of a project that are displayed to conference delegates to entice them to attend your presentation. It is not possible to include all the details of your Thesis on the poster so use the space skillfully to convey a holistic view of your project. The conference paper alternative is better suited to students who intend to publish the results of their thesis or if it is easier to describe the project through detailed explanations with a few supporting figures and images. Templates for the poster and paper options are provided on Moodle.

Assessment Due Date

Week 11 Wednesday (25 Sept 2024) 11:45 pm AEST

Return Date to Students

Feedback is provided at Certification of Grades.

Weighting

10%

Minimum mark or grade

25%

Assessment Criteria

Posters and Papers are marked on a five-point scale from Unacceptable to Excellent or Strongly Disagree to Strongly Agree. The criteria are:

- The paper abstract or poster layout concisely covers the main phases of a project: introduction and aim, methods, results, conclusions and recommendations (formative)
- The aim and objectives are clear, concise, logical and suited to a thesis / final-year project (formative)
- The methodology follows the correct industry practices and is suited to a thesis / final-year project (formative)
- The results are clear, accurate, and relevant to the title, aim and methodologies of the project (formative)
- The conclusions and recommendations follow logically from the results and close out all project objectives (formative)
- Suitable citations support discussions in the introduction, methodology and results, which demonstrate strong connections to industry practices where relevant (formative)
- Suitable language and grammar are used throughout to demonstrate a professional approach to the project (formative)
- The poster or paper is accurately prepared following the templates provided (formative)

- Any tables, figures, graphs or images are of a suitable size and style with clear text incorporating numbers with sensible precision and correct units (formative)
- Overall grade based on formative criteria scores and academic judgement (**summative**)

Markers may also include comments on suggested improvements if necessary.

Referencing Style

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

Submission

Online

Submission Instructions

Your submission will be shared with staff and students.

Learning Outcomes Assessed

- Prepare professional project documents that convey the processes and outcomes of your project
- Communicate your project outcomes to project adviser(s), other stakeholders and the wider community.

4 Final Thesis Presentation

Assessment Type

Presentation

Task Description

Prepare a ten-minute presentation to explain your Thesis holistically. Deliver your presentation at the CQU Engineering Showcase on Wednesday Week 12. You are required to present in-person at one of the CQU Engineering campuses in Queensland; i.e. Bundaberg, Cairns City, Gladstone Marina, Mackay Ooralea or Rockhampton North. You may decide to present at any campus. A registration form is on Moodle. No extensions are possible - missed presentation are rescheduled to the following Engineering Showcase in the next term of offering.

Assessment Due Date

Present on Wednesday of Week 12 during your allocated session in the program.

Return Date to Students

Feedback is provided at Certification of Grades.

Weighting

10%

Minimum mark or grade

50%

Assessment Criteria

Presentations are marked on a five-point scale from Unacceptable to Excellent or Strongly Disagree to Strongly Agree. The criteria are:

- The need for the project is convincingly stated (formative)
- The aim and objectives are clear, concise, and sensible (formative)
- The adopted methodology is suitable for the aim and objectives, and for a graduate (formative)
- The key results are visually prepared using sensible tables, figures, photos, or the correct types of graphs (formative)
- All text is legible, with all values having sensible precision and the correct units (formative)
- The conclusions and recommendations close out the entire project (formative)
- Delivery of the presentation was at the professional standard (formative)
- The presentation was of a suitable duration and the time was used wisely (formative)
- Answers to any questions demonstrate thorough knowledge of the project - optional - (formative)
- The overall grade based on formative criteria scores and academic judgement (**summative**)

Markers may also include comments on suggested improvements if not discussed during the session. Students should take notes of all feedback provided during the session.

Referencing Style

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

Submission

Online

Submission Instructions

Please submit your PowerPoint prior to your session to facilitate solving any issues with accessing slides during your session.

Learning Outcomes Assessed

- Apply and reflect on Engineers Australia's Stage One Competencies for Engineering Technologists to the planning and implementation phases of engineering projects
- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project
- Communicate your project outcomes to project adviser(s), other stakeholders and the wider community.

5 Thesis

Assessment Type

Thesis/Dissertation

Task Description

Prepare a Thesis which communicates your project and results effectively. The first appendix of your thesis should contain your reflections on your attainment of the Engineers Australia's Stage One Competencies and demonstrate that you have applied a substantial degree of Engineers Australia's Stage One Competencies to the implementation phases of your project. Your thesis should be structured as follows with each section starting on a new page:

- Title page
- Summary
- Acknowledgments
- Table of Contents
- List of Figures
- List of Tables
- Glossary/Nomenclature
- Introduction to the Project and Thesis
- Literature Review
- Project Methodology Review
- Results and Discussion
- Conclusion
- Appendix 1 - Reflections on your attainment of Engineers Australia's Stage One Competencies
- Other appendices as appropriate (please note that other appendices will not be graded)

Further guidance and other resources are available in Moodle.

Assessment Due Date

Review/Exam Week Wednesday (9 Oct 2024) 11:45 pm AEST

Return Date to Students

Feedback is provided at Certification of Grades.

Weighting

60%

Minimum mark or grade

50%

Assessment Criteria

Moodle contains a Marking Rubric with expectations given through indicators of attainment at various grading levels for all criteria. Understanding the marking rubric is critical to pass this unit. Students should look at the rubric before starting the assessment while working on the assessment, and as a final check before submitting.

Referencing Style

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

Submission

Online

Submission Instructions

Submit as one PDF document.

Learning Outcomes Assessed

- Apply and reflect on Engineers Australia's Stage One Competencies for Engineering Technologists to the planning and implementation phases of engineering projects
- Think critically, demonstrate sound analysis and make rational judgements and decisions in the implementation phases of your project
- Prepare professional project documents that convey the processes and outcomes of your project

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