



# ENAG11007 Engineering Investigation and Analysis

## Term 2 - 2018

Profile information current as at 24/04/2024 07:01 pm

All details in this unit profile for ENAG11007 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

Students should be able to identify issues relating to investigation, analysis and reporting of technical and environmental investigations and design and conduct effective environmental and technical investigations. They will be able to prepare and perform tests using procedures prescribed in Australian Standards, recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. They will be able to apply sound observation and record keeping practices and analyse information and data, write reports and prepare presentations that communicate the findings and limitations of investigations. Students will assess risks associated with engineering investigations including workplace health and safety issues related to laboratory and field work. They will be able to investigate and identify reliable sources and obtain information about measurement, testing and equipment required for given laboratory or field applications and provide evidence of development of professional communication, teamwork and collaborative learning and problem solving skills. Students will be required to attend a residential school to promote development of unit learning outcomes.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 1*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

MATH11160 Technology Mathematics

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

- Mixed Mode

### 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).

### Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

### 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. **In-class Test(s)**

Weighting: 30%

#### 2. **Written Assessment**

Weighting: 25%

#### 3. **Written Assessment**

Weighting: 25%

#### 4. **Written Assessment**

Weighting: Pass/Fail

#### 5. **Practical and Written Assessment**

Weighting: 20%

### Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

## CQUniversity Policies

**All University policies are available on the [CQUniversity Policy site](#).**

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

## Previous Student Feedback

### Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

#### Feedback from Moodle -Formal Feedback

**Feedback**

Students reported that the field trip, practical examples and relevant activities during the residential school were interesting and well organised.

**Recommendation**

Students reported that the newly introduced industry visit and activities during the residential school were very helpful in furthering their knowledge in the subject area. The practice will continue in the future offering.

#### Feedback from Moodle -Formal Feedback

**Feedback**

Students found the weekly Zoom sessions helpful in learning the unit contents.

**Recommendation**

Students reported that the weekly Zoom session is helpful in learning the unit contents. The practice will continue in the future offering.

#### Feedback from Moodle -Formal Feedback

**Feedback**

Students reported that the unit is a good introductory unit which provided an opportunity to experience a number of analysis techniques over a range of problem types.

**Recommendation**

Students reported that the unit is a good introductory unit which provided an opportunity to experience a number of analysis techniques over a range of problem types. The practice will continue in the future offering.

#### Feedback from Moodle -Formal Feedback

**Feedback**

Assignment return timeframe.

**Recommendation**

Delays in returning the assignment will be avoided in the future offering. The delay happened as a result of the hardware failure of the marking tool and subsequent manual handling (printing, marking, scanning, uploading, etc.) of all the lengthy reports/assignments.

## Unit Learning Outcomes

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

1. Discuss issues relating to investigation, analysis and reporting of technical and environmental investigations. [1, 2, 3, 9]
2. Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
3. Prepare and perform tests using procedures prescribed in Australian Standards. [3, 5]
4. Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3, 5]
5. Analyse information and data, write reports and prepare presentations that communicate the findings and limitations of investigations. [2, 9]
6. Assess risks associated with engineering investigations including workplace health and safety issues related to laboratory and field work. [4, 5, 7, 8, 9]
7. Investigate and identify reliable sources and obtain information about measurement, testing and equipment required for given laboratory or field applications. [3, 10]
8. Provide evidence of development of professional communication, teamwork and collaborative learning and problem solving skills. [2, 4, 6, 9, 10]

## 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	7	8
1 - In-class Test(s) - 30%	•	•		•		•		
2 - Practical and Written Assessment - 20%		•	•	•	•	•	•	•
3 - Written Assessment - 25%	•	•	•	•	•	•	•	
4 - Written Assessment - 25%	•	•		•	•			
5 - Written Assessment - 0%	•	•		•			•	•

### 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 - In-class Test(s) - 30%	•	•	•	•		•		•		
2 - Practical and Written Assessment - 20%	•	•	•	•	•	•	•	•		
3 - Written Assessment - 25%	•	•	•	•		•		•		
4 - Written Assessment - 25%	•	•	•	•		•		•		
5 - Written Assessment - 0%	•	•	•	•		•		•		

## Textbooks and Resources

### Textbooks

ENAG11007

#### Prescribed

##### Introduction to Engineering Analysis

Edition: 4th Edn (2013)

Authors: Kirk D. Hagen

Pearson Education Inc.

Upper Saddle River , USA

Binding: Paperback

ENAG11007

#### Supplementary

##### Experimental Methods for Engineers

Edition: 8th Edn (2012)

Authors: Jack Philip Holman

McGraw Hill Higher Education

New York , USA

Binding: Hardcover

[View textbooks at the CQUniversity Bookshop](#)

### IT Resources

**You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Word processor and Spreadsheet software

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Ashfaque Chowdhury** Unit Coordinator

[a.chowdhury@cqu.edu.au](mailto:a.chowdhury@cqu.edu.au)

## Schedule

### Week 1 - 09 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Introduction/Analysis in Engineering	See unit website	

### Week 2 - 16 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Introduction/Basic Concepts	See unit website	

### Week 3 - 23 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Force, Torque and Strain Measurements and Analysis	See unit website	

### Week 4 - 30 Jul 2018

Module/Topic	Chapter	Events and Submissions/Topic
Temperature Measurements	See unit website	

### Week 5 - 06 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Electrical Measurements and Analysis	See unit website	

### Vacation Week - 13 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Residential School	See unit website	<b>Class Test</b> Due: Vacation Week Friday (17 Aug 2018) 11:45 pm AEST

### Week 6 - 20 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Renewable Energy Systems Analysis	See unit website	

### Week 7 - 27 Aug 2018

Module/Topic	Chapter	Events and Submissions/Topic
Analysis of Experimental Data	See unit website	

### Week 8 - 03 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Basic Environmental Measurements	See unit website	

### Week 9 - 10 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Flow Measurements and Analysis	See unit website	<b>Assignment One</b> Due: Week 9 Monday (10 Sept 2018) 11:45 pm AEST

### Week 10 - 17 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Pressure Measurements	See unit website	

### Week 11 - 24 Sep 2018

Module/Topic	Chapter	Events and Submissions/Topic
Motion and Vibration Measurements and Analysis	See unit website	

### Week 12 - 01 Oct 2018

Module/Topic	Chapter	Events and Submissions/Topic

Application: Design of Experiments and Analysis

See unit website

**Assignment Two** Due: Week 12  
Friday (5 Oct 2018) 11:45 pm AEST

### Review/Exam Week - 08 Oct 2018

Module/Topic

Chapter

Events and Submissions/Topic

**Laboratory Reports** Due:  
Review/Exam Week Monday (8 Oct 2018) 11:45 pm AEST

### Exam Week - 15 Oct 2018

Module/Topic

Chapter

Events and Submissions/Topic

**Workbook** Due: Exam Week Monday  
(15 Oct 2018) 11:45 pm AEST

## Assessment Tasks

### 1 Class Test

#### Assessment Type

In-class Test(s)

#### Task Description

The test covers the weekly topics 1- 5 and the residential school activities. Class test will be distributed at the test venue at the end of the residential school.

#### Assessment Due Date

Vacation Week Friday (17 Aug 2018) 11:45 pm AEST

The test will be held on the last day of the residential school

#### Return Date to Students

Week 7 Friday (31 Aug 2018)

It is expected that the assessment item will be returned in 2 weeks after the due date.

#### Weighting

30%

#### Assessment Criteria

Each question in test will be assessed separately for the criterion accuracy and correct results. A question will be deemed to have been completed if the student has shown correct procedure and sound understanding of the work.

#### Referencing Style

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

#### Submission

Offline

#### Submission Instructions

In class submission

#### Learning Outcomes Assessed

- Discuss issues relating to investigation, analysis and reporting of technical and environmental investigations. [1, 2, 3, 9]
- Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
- Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3 ,5]
- Assess risks associated with engineering investigations including workplace health and safety issues related to laboratory and field work. [4, 5, 7 ,8 ,9]

#### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

- Ethical practice

## 2 Assignment One

### Assessment Type

Written Assessment

### Task Description

In this assessment item, students are required to answer problem solving and numerical questions based on weekly topics from 1, 2, 5 to 8. The assignment tasks and questions will be uploaded on the unit website (Moodle).

### Assessment Due Date

Week 9 Monday (10 Sept 2018) 11:45 pm AEST

### Return Date to Students

Week 11 Monday (24 Sept 2018)

It is expected that assignment will be returned in 2 weeks after the due date.

### Weighting

25%

### Minimum mark or grade

You must get minimum of 50% on this assessment item to pass this unit

### Assessment Criteria

Each question in this assignment will be assessed separately for the criterion accuracy and correct results. 20% of the total marks for this assignment are based on accuracy and correct results, including:

- Correct application of maths and arithmetic
- Answers clearly identified
- Correct results

In addition, the assignment, as a whole, will be assessed against the following criteria:

Evidence of correct procedures (40% of the total marks for the assignment)

- All necessary steps in analysis are present on correct order
- Clear presentation of mathematical and arithmetical working linking given details of the problem to the results obtained.
- Evidence of checking results (mathematical, graphical, logic-common sense)

Evidence of understanding of the topic (30% of the total marks for the assignment)

- Explanation of choices made in the analysis (why is procedure required, why is this particular procedure)
- Interpretation of results, eg limitations etc, if any.

Professional presentation (10% of the total marks for the assignment)

- The problem is clearly identified
- Clear statement of each problem and its details and requirements
- Logical layout of analysis
- Appropriate use of diagrams, clear diagrams
- Correct use of terminology and conventions

### Referencing Style

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

### Submission

Online

### Submission Instructions

You should submit the assessment item via unit website (Moodle). It is not expected that students will type up calculations. Students should scan hand calculations for online submission.

### Learning Outcomes Assessed

- Discuss issues relating to investigation, analysis and reporting of technical and environmental investigations. [1, 2, 3, 9]
- Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
- Prepare and perform tests using procedures prescribed in Australian Standards. [3, 5]
- Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3, 5]



- Analyse information and data, write reports and prepare presentations that communicate the findings and limitations of investigations. [2, 9]
- Assess risks associated with engineering investigations including workplace health and safety issues related to laboratory and field work. [4, 5, 7, 8, 9]
- Investigate and identify reliable sources and obtain information about measurement, testing and equipment required for given laboratory or field applications. [3, 10]

### Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

## 3 Assignment Two

### Assessment Type

Written Assessment

### Task Description

In this assessment item, students are required to answer analytical and numerical questions based on weekly topic from 9 to 12. The assignment tasks and questions will be uploaded on the unit website (Moodle).

### Assessment Due Date

Week 12 Friday (5 Oct 2018) 11:45 pm AEST

### Return Date to Students

Exam Week Friday (19 Oct 2018)

It is expected that assignment will be returned in 2 weeks after the due date.

### Weighting

25%

### Minimum mark or grade

You must get minimum of 50% on this assessment item to pass this unit

### Assessment Criteria

Each question in this assignment will be assessed separately for the criterion accuracy and correct results. 20% of the total marks for this assignment are based on accuracy and correct results, including:

- Correct application of maths and arithmetic
- Answers clearly identified
- Correct results

In addition, the assignment, as a whole, will be assessed against the following criteria:

Evidence of correct procedures (40% of the total marks for the assignment)

- All necessary steps in analysis are present on correct order
- Clear presentation of mathematical and arithmetical working linking given details of the problem to the results obtained.
- Evidence of checking results (mathematical, graphical, logic-common sense)

Evidence of understanding of the topic (30% of the total marks for the assignment)

- Explanation of choices made in the analysis (why is procedure required, why is this particular procedure)
- Interpretation of results, eg limitations etc, if any.

Professional presentation (10% of the total marks for the assignment)

- The problem is clearly identified
- Clear statement of each problem and its details and requirements
- Logical layout of analysis
- Appropriate use of diagrams, clear diagrams
- Correct use of terminology and conventions

### Referencing Style

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

### Submission

Online

### Submission Instructions

You should submit the assessment item via unit website (Moodle). It is not expected that students will type up

calculations. Students should scan hand calculations for online submission.

### **Learning Outcomes Assessed**

- Discuss issues relating to investigation, analysis and reporting of technical and environmental investigations. [1, 2, 3, 9]
- Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
- Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3, 5]
- Analyse information and data, write reports and prepare presentations that communicate the findings and limitations of investigations. [2, 9]

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

## **4 Workbook**

### **Assessment Type**

Written Assessment

### **Task Description**

The Workbook provides a record or detailed diary of each individual student's study and learning activities throughout the unit and should include all individual work carried out. Preparation of a Workbook should be understood as good study technique. It also provides evidence that students have adequately studied the whole unit and achieved unit learning outcomes. The Workbook can be handwritten or kept as a text file. Each entry should be dated, pages should be numbered and show your name or initials. It should be prepared week by week, not at the end of term. Show rough attempts at problems including failures and fixes, brainstorming, draft notes and developing ideas. In the Workbook students should record:

- study notes taken while studying textbooks and unit resources
- study notes taken during lectures and/or workshops
- personal study summaries of key concepts
- notes, sketches/ drawings or mind-maps
- planning and preparation for team/project tasks
- planning and preparation for online unit discussions
- workbook practice tasks you are asked to complete in the Unit Website
- initial attempts at set tutorial tasks
- initial attempts at assignment tasks
- preparation for class tests or exams.

### **Assessment Due Date**

Exam Week Monday (15 Oct 2018) 11:45 pm AEST

### **Return Date to Students**

Exam Week Friday (19 Oct 2018)

It is expected that the assessment item will be returned in 2 weeks after the due date.

### **Weighting**

Pass/Fail

### **Minimum mark or grade**

Pass

### **Assessment Criteria**

Workbook questions will be set for each topic and will be available on the unit website. If students have difficulty with Workbook questions, they should seek assistance. All questions must be successfully completed in the workbook and responses must show sufficient working and explanation to allow step-by-step checking by tutors. At least 50% of the questions must be completed to achieve a passing grade. A question will be deemed to have been completed if the student has shown correct procedure and sound understanding of the work. All calculations should be justified with reference to the text or relevant Standards and Codes.

### **Referencing Style**

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

### **Submission**

Online

### **Submission Instructions**

You should submit the assessment item via unit website (Moodle). It is not expected that students will type up calculations. Students should scan hand calculations for online submission.

### **Learning Outcomes Assessed**

- Discuss issues relating to investigation, analysis and reporting of technical and environmental investigations. [1, 2, 3, 9]
- Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
- Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3, 5]
- Investigate and identify reliable sources and obtain information about measurement, testing and equipment required for given laboratory or field applications. [3, 10]
- Provide evidence of development of professional communication, teamwork and collaborative learning and problem solving skills. [2, 4, 6, 9, 10]

### **Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Ethical practice

## **5 Laboratory Reports**

### **Assessment Type**

Practical and Written Assessment

### **Task Description**

Each student will be required to complete the laboratory exercises given in the instruction sheets. Laboratory sessions are compulsory, and each session will be up to 2 hours in duration. The timetable of laboratories will be supplied separately via unit website (Moodle).

### **Statement on Safety**

According to the Workplace Health and Safety Act, 1995, it is a legal requirement that all persons at a workplace must not act in a manner that endangers the health or safety of any person at that workplace. As a student, your University is your workplace. When attending laboratories, workshops and field activities, fully enclosed footwear covering the whole foot must be worn at all times. Other personal protective equipment must be worn when required, or as directed by the lecturer or technical officer-in-charge. All requirements of the Faculty Workplace Clothing Policy must also be observed. In the laboratory clothing must fully cover the torso, and have at least a short sleeve (i.e. no singlets). Failure to comply with any of the above health and safety requirements may result in your exclusion from laboratory, workshop or activities - most of which are compulsory.

### **At laboratory session:**

- Arrive early; be organised and ready to do the laboratory experiment.

### **Ensure to bring:**

- Laboratory instruction sheets if any;
- Graph paper (A4 linear, 10 div/cm);
- Notebook (A4 hard bound);
- Ruler (30 cm clear plastic);
- Pen & pencil;
- Scientific calculator;
- Correct footwear.

Students are expected to complete the entire laboratory exercises including the drawing of graphs and calculating the final answer and submit a team report. All raw data must be entered in the notebook immediately.

### **Laboratory submission cover sheet:**

Softcopy (electronic) submissions must be compiled as one single pdf file and submitted through the unit website (Moodle). The first page of the assignment must show the following information: Names, Student Numbers, Year, Term, Unit Code, Assessment item details.

**Assessment Due Date**

Review/Exam Week Monday (8 Oct 2018) 11:45 pm AEST

**Return Date to Students**

Exam Week Friday (19 Oct 2018)

It is expected that assignment will be returned in 2 weeks after the due date.

**Weighting**

20%

**Minimum mark or grade**

You must get minimum of 50% on this assessment item to pass this unit

**Assessment Criteria**

- Reporting of key elements/steps (eg. Theory, Objective, Procedures, Results etc) taken to undertake the laboratory sessions (40% of total marks).
- Clarity of expression, including correct grammar, spelling, punctuation and appropriate referencing of sources (10% of total marks).
- Accurate and correct use and presentation of mathematical equations or graphs, tables, diagrams and/or drawings (30% of total marks).
- Clarity and logical presentation of ideas and arguments by means of data analysis and synthesis (20% of total marks).

**Referencing Style**

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

**Submission**

Online Group

**Submission Instructions**

You should submit the assessment item via unit website (Moodle).

**Learning Outcomes Assessed**

- Design and conduct effective environmental and technical investigations. [1, 3, 4, 5]
- Prepare and perform tests using procedures prescribed in Australian Standards. [3, 5]
- Recommend and justify measurement methods and choose transducers and data acquisition methods for given measurement tasks taking into account instrument calibration and errors. [1, 3, 5]
- Analyse information and data, write reports and prepare presentations that communicate the findings and limitations of investigations. [2, 9]
- Assess risks associated with engineering investigations including workplace health and safety issues related to laboratory and field work. [4, 5, 7, 8, 9]
- Investigate and identify reliable sources and obtain information about measurement, testing and equipment required for given laboratory or field applications. [3, 10]
- Provide evidence of development of professional communication, teamwork and collaborative learning and problem solving skills. [2, 4, 6, 9, 10]

**Graduate Attributes**

- 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