



# **BLCN14039 Infrastructure Planning**

## **Term 3 - 2022**

Profile information current as at 14/12/2025 03:41 pm

All details in this unit profile for BLCN14039 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

The unit introduces students to the principles and practices of infrastructure planning. Topics to be studied include infrastructure evaluation strategies, risk management, environmental and social impacts of infrastructure projects, financial concepts to assess project viability, contractual and participation relationships, management structures and sustainability of projects. Project case studies will be used to support student learning.

### Details

Career Level: *Undergraduate*

Unit Level: *Level 4*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

### Pre-requisites or Co-requisites

There are no requisites for this unit.

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 3 - 2022

- 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 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: 5%

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

Weighting: 20%

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

Weighting: 5%

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

Weighting: 25%

#### 5. **Written Assessment**

Weighting: 5%

#### 6. **Presentation and Written Assessment**

Weighting: 40%

### 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 Communication with students

##### Feedback

The lectures and tutorials are helpful. Students would like to see more case studies in this unit.

##### Recommendation

The teaching team will add more case studies to explain the knowledge.

## Unit Learning Outcomes

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

1. Evaluate infrastructure projects, their risks and uncertainties
2. Explain environmental and social impacts on infrastructure projects
3. Apply financial concepts to project selection and viability
4. Assess contractual relationships and participation strategies
5. Discuss the management of infrastructure projects
6. Apply knowledge of infrastructure management to a case study
7. Prepare an infrastructure project report

## 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
1 - Written Assessment - 5%	•					•	
2 - Written Assessment - 20%	•					•	
3 - Written Assessment - 5%		•				•	
4 - Written Assessment - 25%			•			•	
5 - Written Assessment - 5%		•	•	•		•	
6 - Presentation and Written Assessment - 40%	•	•	•	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
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 - 5%	•	•	•	•		•		•		
2 - Written Assessment - 20%	•	•	•	•		•		•		
3 - Written Assessment - 5%	•	•	•	•		•		•		
4 - Written Assessment - 25%	•	•	•	•		•		•		
5 - Written Assessment - 5%	•	•	•	•		•		•		
6 - Presentation and Written Assessment - 40%	•	•	•	•		•		•		

## 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)
- Microphone and headset (and preferably a camera) to participate in Zoom sessions
- Microsoft Office or equivalent (word-processing) software for preparation of assessment items in the appropriate format

## Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)  
For further information, see the Assessment Tasks.

## Teaching Contacts

**Bill Zhao** Unit Coordinator  
[b.zhao@cqu.edu.au](mailto:b.zhao@cqu.edu.au)

## Schedule

### Week 1 - 07 Nov 2022

Module/Topic	Chapter	Events and Submissions/Topic
Introduction to Infrastructure Planning		

### Week 2 - 14 Nov 2022

Module/Topic	Chapter	Events and Submissions/Topic
Project evaluation and risk management		<b>A1 Short Written Response</b> Due: Week 2 Wednesday (16 Nov 2022) 11:45 pm AEST

### Week 3 - 21 Nov 2022

Module/Topic	Chapter	Events and Submissions/Topic
Project evaluation and risk management (continued)		

### Week 4 - 28 Nov 2022

Module/Topic	Chapter	Events and Submissions/Topic
Environmental and social impacts		<b>A2 Written Assessment</b> Due: Week 4 Wednesday (30 Nov 2022) 11:45 pm AEST

### Vacation Week - 05 Dec 2022

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 5 - 12 Dec 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Environmental and social impacts (continued)		

**Week 6 - 19 Dec 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Financial concepts and strategies		<b>A3 Short Written Response</b> Due: Week 6 Wednesday (21 Dec 2022) 11:45 pm AEST

**Vacation Week - 26 Dec 2022**

Module/Topic	Chapter	Events and Submissions/Topic
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**Week 7 - 02 Jan 2023**

Module/Topic	Chapter	Events and Submissions/Topic
Financial concepts and strategies (continued)		

**Week 8 - 09 Jan 2023**

Module/Topic	Chapter	Events and Submissions/Topic
Infrastructure relationships and contracts		<b>A4 Written Assessment</b> Due: Week 8 Wednesday (11 Jan 2023) 11:45 pm AEST

**Week 9 - 16 Jan 2023**

Module/Topic	Chapter	Events and Submissions/Topic
Infrastructure relationships and contracts (continued)		

**Week 10 - 23 Jan 2023**

Module/Topic	Chapter	Events and Submissions/Topic
Managing infrastructure projects		<b>A5 Short Written Response</b> Due: Week 10 Wednesday (25 Jan 2023) 11:45 pm AEST

**Week 11 - 30 Jan 2023**

Module/Topic	Chapter	Events and Submissions/Topic
Managing infrastructure projects (continued)		

**Week 12 - 06 Feb 2023**

Module/Topic	Chapter	Events and Submissions/Topic
International projects and sustainability		

**Exam Week - 13 Feb 2023**

Module/Topic	Chapter	Events and Submissions/Topic
		<b>A6 Written Assessment and presentation</b> Due: Exam Week Wednesday (15 Feb 2023) 11:45 pm AEST

**Assessment Tasks**

# 1 A1 Short Written Response

## Assessment Type

Written Assessment

## Task Description

This assessment relates to unit learning outcomes 1 and 6. Assessment task 1 will require you to research and answer a question that explores common infrastructure planning concepts. Late submissions will be penalised by 5% per day on the assignment total value.

## Assessment Due Date

Week 2 Wednesday (16 Nov 2022) 11:45 pm AEST

## Return Date to Students

Week 4 Wednesday (30 Nov 2022)

Within 2 weeks of submission.

## Weighting

5%

## Assessment Criteria

The assignment will be assessed on the following basis:

- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

## Referencing Style

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

## Submission

Online

## Submission Instructions

Please refer to the Moodle site for specific assessment submission criteria.

## Learning Outcomes Assessed

- Evaluate infrastructure projects, their risks and uncertainties
- Apply knowledge of infrastructure management to a case study

## Graduate Attributes

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

# 2 A2 Written Assessment

## Assessment Type

Written Assessment

## Task Description

This assessment relates to unit learning outcomes 1, 2 and 6. Assessment task 2 will require you to:

- Identify a successful infrastructure project in Australia and explain why you think it has successfully met community needs.
- Evaluate the risks associated with the hydrogen strategy
- Describe a climate model in terms of its advantages and short comings.

**Assessment Due Date**

Week 4 Wednesday (30 Nov 2022) 11:45 pm AEST

**Return Date to Students**

Week 5 Wednesday (14 Dec 2022)

Within 2 weeks of submission.

**Weighting**

20%

**Assessment Criteria**

The assignment will be assessed on the following basis:

- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

Please refer to the Moodle site for specific assessment submission criteria.

**Learning Outcomes Assessed**

- Evaluate infrastructure projects, their risks and uncertainties
- Apply knowledge of infrastructure management to a case study

**Graduate Attributes**

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

### 3 A3 Short Written Response

**Assessment Type**

Written Assessment

**Task Description**

This assessment relates to unit learning outcomes 2 and 6. Assessment task 3 will require you to research and answer a question that explores infrastructure planning concepts.

Late submissions of assignment A3 will be penalised by 5% per day on the assignment total value.

**Assessment Due Date**

Week 6 Wednesday (21 Dec 2022) 11:45 pm AEST

**Return Date to Students**

Week 7 Wednesday (4 Jan 2023)

Within 2 weeks of submission.

**Weighting**

5%

**Assessment Criteria**

The assignment will be assessed on the following basis:



- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

### Referencing Style

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

### Submission

Online

### Submission Instructions

Please refer to the Moodle site for specific assessment submission criteria.

### Learning Outcomes Assessed

- Explain environmental and social impacts on infrastructure projects
- Apply knowledge of infrastructure management to a case study

### Graduate Attributes

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

## 4 A4 Written Assessment

### Assessment Type

Written Assessment

### Task Description

This assessment relates to unit learning outcomes 2, 3 and 6. Assessment task 4 will require you to answer the questions relating to:

- Environmental problems in draining and filling wetlands
- Environmental costs and mitigation strategies for highways
- Infrastructure and productivity
- Financial concepts and strategies

### Assessment Due Date

Week 8 Wednesday (11 Jan 2023) 11:45 pm AEST

### Return Date to Students

Week 10 Wednesday (25 Jan 2023)

Within 2 weeks of submission.

### Weighting

25%

### Assessment Criteria

The assignment will be assessed on the following basis:

- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

## Referencing Style

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

## Submission

Online

## Submission Instructions

Please refer to the Moodle site for specific assessment submission criteria.

## Learning Outcomes Assessed

- Apply financial concepts to project selection and viability
- Apply knowledge of infrastructure management to a case study

## Graduate Attributes

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

# 5 A5 Short Written Response

## Assessment Type

Written Assessment

## Task Description

This assessment relates to unit learning outcomes 2, 3, 4 and 6. Assessment task 5 will require you to research and answer a question that explores infrastructure planning concepts. Late submissions will be penalised by 5% per day on the assignment total value.

## Assessment Due Date

Week 10 Wednesday (25 Jan 2023) 11:45 pm AEST

## Return Date to Students

Week 12 Wednesday (8 Feb 2023)

Within two weeks of submission

## Weighting

5%

## Assessment Criteria

The assignment will be assessed on the following basis:

- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

## Referencing Style

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

## Submission

Online

## Submission Instructions

refer to Moodle for instructions

## Learning Outcomes Assessed

- Explain environmental and social impacts on infrastructure projects
- Apply financial concepts to project selection and viability
- Assess contractual relationships and participation strategies

- Apply knowledge of infrastructure management to a case study

### **Graduate Attributes**

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

## **6 A6 Written Assessment and presentation**

### **Assessment Type**

Presentation and Written Assessment

### **Task Description**

This assessment relates to unit learning outcomes 1 to 7. Assessment task 6 will require you to answer the questions relating to□

- Public Private Infrastructure projects.
- Cost overruns in infrastructure projects
- Sustainability of infrastructure

You are also required to investigate one aspect of Australia's port infrastructure and evaluate and make recommendations on possible improvements based on the theories you have learnt in this unit

### **Assessment Due Date**

Exam Week Wednesday (15 Feb 2023) 11:45 pm AEST

### **Return Date to Students**

Exam Week Friday (17 Feb 2023)

Two weeks after the due date of the assessment.

### **Weighting**

40%

### **Minimum mark or grade**

Obtain an overall mark of 50% AND obtain a mark of at least 40% for Assessment A6

### **Assessment Criteria**

The assignment will be assessed on the following basis:

- Clarity of expression and comprehensive coverage of issues
- Use of quality supporting documentation as appropriate
- Use of original thought and content
- Proper use of the Harvard referencing style
- Overall presentation and ability to communicate using correct spelling, grammar and punctuation and the use of appropriate diagrams and other visual communication.
- Demonstration of core knowledge and demonstration of appropriate application of knowledge.

### **Referencing Style**

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

### **Submission**

Online

### **Submission Instructions**

refer to Moodle for instructions

### **Learning Outcomes Assessed**

- Evaluate infrastructure projects, their risks and uncertainties
- Explain environmental and social impacts on infrastructure projects
- Apply financial concepts to project selection and viability
- Assess contractual relationships and participation strategies
- Discuss the management of infrastructure projects
- Apply knowledge of infrastructure management to a case study

- Prepare an infrastructure project report

#### **Graduate Attributes**

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