



# BLCN13034 Construction Economics 2

## Term 3 - 2018

Profile information current as at 03/05/2024 08:05 pm

All details in this unit profile for BLCN13034 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 overall aims of this unit are to: to understand the research methods and decision processes that are undertaken from the initial project or development idea through to project feasibility; understand the purpose and methodology in conducting feasibility studies and initial project evaluation; be familiar with purpose and methodology in conducting cost benefit analysis and investment decision techniques; understand the issues associated with investment strategies and pricing techniques that can influence the initial project accept or reject decision; be familiar with the methodologies and techniques used to assist cost control and bench-marking for project feasibility and project evaluations; and understand the techniques used to appraise a project using the quantitative and qualitative techniques of value management to increase the likelihood of better long-term outcomes for a project.

#### 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

Prerequisites: BLAR13047 or [BLCN14005 and BLSV12013]

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 - 2018

- Distance

#### 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: 40%

#### 2. **Presentation and Written Assessment**

Weighting: 44%

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

Weighting: 16%

### Assessment Grading

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

## CQUniversity Policies

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

You may wish to view these policies:

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

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

## Previous Student Feedback

### Feedback, Recommendations and Responses

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

#### Feedback from Unit evaluation

##### Feedback

I found the recorded lectures had an echo which made listening to them difficult.

##### Recommendation

Enhance the lecture recording quality.

## Unit Learning Outcomes

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

1. Understand the research methods and decision processes that are undertaken from the initial project or development idea through to project feasibility
2. Understand the purpose and methodology in conducting feasibility studies and initial project evaluation
3. Be familiar with purpose and methodology in conducting cost benefit analysis and investment decision techniques
4. Understand the issues associated with investment strategies and pricing techniques that can influence the initial project accept or reject decision
5. Be familiar with the methodologies and techniques used to assist cost control and benchmarking for project feasibilities and project evaluations
6. Understand the techniques used to appraise a project using the quantitative and qualitative techniques of value management to increase the likelihood of better long-term outcomes for a project.

## 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
<b>1 - Written Assessment - 40%</b>	•	•				
<b>2 - Presentation and Written Assessment - 44%</b>			•	•	•	•
<b>3 - Written Assessment - 16%</b>	•	•	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
<b>1 - Communication</b>	•	•	•	•	•	•

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - 40%	•	•	•	•		•				
2 - Presentation and Written Assessment - 44%	•	•	•	•		•				
3 - Written Assessment - 16%	•	•	•	•		•				

## Textbooks and Resources

### Textbooks

**There are no required textbooks.**

#### Additional Textbook Information

For purchasing options, refer to [www.standards.org.au](http://www.standards.org.au).

### IT Resources

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

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

## Referencing Style

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

For further information, see the Assessment Tasks.

## Teaching Contacts

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

## Schedule

### Week 1 - 05 Nov 2018

Module/Topic	Chapter	Events and Submissions/Topic
1. Development appraisal		

### Week 2 - 12 Nov 2018

Module/Topic	Chapter	Events and Submissions/Topic
1. Development appraisal		

### Week 3 - 19 Nov 2018

Module/Topic	Chapter	Events and Submissions/Topic
2. Feasibility studies		

### Week 4 - 26 Nov 2018

Module/Topic	Chapter	Events and Submissions/Topic
2. Feasibility studies		

### Vacation Week - 03 Dec 2018

Module/Topic	Chapter	Events and Submissions/Topic
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### Week 5 - 10 Dec 2018

Module/Topic	Chapter	Events and Submissions/Topic
3. Cost benefit analysis		<b>Written assessment 40% Due:</b> Week 5 Monday (10 Dec 2018) 11:45 pm AEST

### Week 6 - 17 Dec 2018

Module/Topic	Chapter	Events and Submissions/Topic
3. Cost benefit analysis		

### Week 7 - 31 Dec 2018

Module/Topic	Chapter	Events and Submissions/Topic
4. Project pricing and investment strategies		

### Week 8 - 07 Jan 2019

Module/Topic	Chapter	Events and Submissions/Topic
4. Project pricing and investment strategies		

### Week 9 - 14 Jan 2019

Module/Topic	Chapter	Events and Submissions/Topic
5. Cost control and benchmarking		

### Week 10 - 21 Jan 2019

Module/Topic	Chapter	Events and Submissions/Topic
5. Cost control and benchmarking		

### Week 11 - 28 Jan 2019

Module/Topic	Chapter	Events and Submissions/Topic
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6. Value management

**Written assessment 44%** Due:  
Week 11 Monday (28 Jan 2019) 11:45  
pm AEST

**Week 12 - 04 Feb 2019**

Module/Topic	Chapter	Events and Submissions/Topic
6. Value management		

**Exam Week - 11 Feb 2019**

Module/Topic	Chapter	Events and Submissions/Topic
		<b>Workbook assessment 16%</b> Due: Exam Week Monday (11 Feb 2019) 11:45 pm AEST

## Assessment Tasks

### 1 Written assessment 40%

**Assessment Type**

Written Assessment

**Task Description**

**OBJECTIVES**

This assessment item relates to the unit learning outcomes 1 and 2.

Note: Assessment item should be submitted online via "Assessment" in the course Moodle site. Only ONE file (doc, docx, pdf) can be submitted.

**QUESTION 1**

Various factors influence the demand for residential buildings. Some of these factors are controllable, while some are outside a company's control. Assume you are a manager from a property development company and investigate the demand for residential buildings in your location. You are required to identify five factors, which are outside your company's control and have a significant impact on the demand for residential buildings in your location.

Here, please (1) identify these five factors, (2) discuss how these factors impact the demand, and (3) provide recommendations for your company to respond to these five factors. (Around 300-350 words per factor)

**QUESTION 2**

Your company would like to develop a shopping mall in the CBD of a large city. You are invited to prepare a feasibility study report.

(1) What specific tasks will you carry out? Brief description to each task is needed. (350-400 words)

(2) How do tax considerations influence the development process? Sufficient explanations should be provided. (350-400 words)

**QUESTION 3**

Visit the Australian Bureau of Statistics (ABS) website and search the figures of Australian annual total dwelling units approved (seasonally adjusted), during the period 2015-2017.

(1) What does "seasonally adjusted" mean?

(2) Discuss the change trend of the total dwelling units approved in 2015-2017. (around 200 words)

(3) Provide three possible reasons for the change. (around 300-350 words)

**Assessment Due Date**

Week 5 Monday (10 Dec 2018) 11:45 pm AEST

**Return Date to Students**

Week 6 Friday (21 Dec 2018)

**Weighting**

40%

**Assessment Criteria**

Criteria	Max. Score	Description	Breakdown
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Presentation and layout	1.5	Tables, figures and appendix are presented in the submission in the correct way.	1.5
Question 1	17.5	1. Identify 5 reasonable factors, which are outside your company's control and have a significant impact on the demand for residential buildings in your location 2. Discuss how these 5 factors impact the demand. 3. Provide reasonable and practical responses to each factor	5 7.5 5
Question 2	11	1. Clearly list out specific tasks that you would carry out. 2. Briefly describe each task. 3. Discuss how tax considerations influence the development process. Sufficient explanations should be provided.	3 3 5
Question 3	8	1. Clearly explain the meaning of "seasonally adjusted". 2. Discuss the change trend of the total dwelling units approved in 2013-2016. 3. Clearly provide three reasons for the change.	2 3 3
References	2	1. The Harvard referencing system is used where relevant. 2. The reference list is comprehensive and includes credible sources other than websites.	1 1

### Referencing Style

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

### Submission

Online

### Learning Outcomes Assessed

- Understand the research methods and decision processes that are undertaken from the initial project or development idea through to project feasibility
- Understand the purpose and methodology in conducting feasibility studies and initial project evaluation

### Graduate Attributes

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

## 2 Written assessment 44%

### Assessment Type

Presentation and Written Assessment

### Task Description

#### OBJECTIVES

This assessment item relates to the learning outcomes 3 and 6.

Note: Assessment item should be submitted online via "Assessment" in the course Moodle site. Only ONE file (doc, docx, pdf) can be submitted.

#### QUESTION 1

A company will invest to construct an office building in the urban area. The following assumptions are applied:

- A discount rate is accepted at 7.3%.
- The initial investment includes 150 million dollars at the beginning of the 1st year and 50 million dollars at the beginning of 2nd year.
- The company will rent out offices to earn income. At the beginning of the 3rd year, the company will receive a net

annual rent of 10 million dollars, by renting out 70% of all the offices.

· At the beginning of the 4th year, the company will receive a net annual rent of 14 million dollars, by renting out all the offices. The net annual rent will increase by 5% per year, from the beginning of the 5th year.

Now the company has two options:

Option A: at the end of 10th year, the company will sell out the building at the price of 266 million dollars;

Option B: at the beginning of the 11th year, the company will spend 34 million dollars in refurbishing the office building, and will not receive rent income in the whole 11th year; from the beginning of 12th years, the company will receive a net annual rent of 21 million dollars, and the net annual rent will increase by 5% per year in the 13th, 14th, and 15th years; at the end of 15th year, the company will sell out the whole building at the price of 325 million dollars.

(1) Draw the net cash flow diagrams of the two investment options.

(2) Calculate the net present value (NPV) of the two options. You must show the calculation process.

(3) Are the two options viable? Which option is better?

(4) What are the possible problems of using the NPV method to assess the project viability?

(5) Can the internal rate of return (IRR) method be used to evaluate the financial viability of the two options? Provide the reasons?

(6) List all the possible cost factors that should be considered in the project financial viability. Briefly explain why these cost factors should be considered.

#### QUESTION 2

The value management (VM) approach intends to analyze the functions and costs of a system, supply, equipment, service or facility and improve the value by means of achieving the required functions specified by the clients at the lowest possible overall cost, consistent with requirements for performance. As the construction industry has been consistently working towards satisfaction of clients' needs, VM has been widely adopted in the construction industry and recognized as an effective method for achieving "best value-for-money" for clients.

Please prepare a report to describe the use of VM in your company/organization. You are required to show:

(1) How is VM adopted in your company? (around 400 words)

(2) In your opinion, how do you enhance the VM practices in your company? (around 500 words)

#### Assessment Due Date

Week 11 Monday (28 Jan 2019) 11:45 pm AEST

#### Return Date to Students

Exam Week Friday (15 Feb 2019)

#### Weighting

44%

#### Assessment Criteria

Criteria	Max. Score	Description	Breakdown
Question 1	35	1. Correctly draw the net cash flow diagrams of the two investment options.	6
		2. Calculate the NPV of the two options with the clear calculation process.	8
		3. Are the two options viable? Which option is better?	3
		4. Discuss the possible problems of using the NPV method to assess the project viability.	5
		5. Discuss whether the internal rate of return (IRR) method can be used to evaluate the financial viability of the two options. Provide possible reasons.	5
		6. List all the possible cost factors that should be considered in the project financial viability.	4
		7. Briefly explain why these cost factors should be considered.	4
Question 2	9	1. Clearly describe how VM is adopted in your company.	4
		2. Provide reasonable ways to enhance VM practices in your company.	5



## Referencing Style

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

## Submission

Online

## Learning Outcomes Assessed

- Be familiar with purpose and methodology in conducting cost benefit analysis and investment decision techniques
- Understand the issues associated with investment strategies and pricing techniques that can influence the initial project accept or reject decision
- Be familiar with the methodologies and techniques used to assist cost control and benchmarking for project feasibilities and project evaluations
- Understand the techniques used to appraise a project using the quantitative and qualitative techniques of value management to increase the likelihood of better long-term outcomes for a project.

## Graduate Attributes

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

## 3 Workbook assessment 16%

### Assessment Type

Written Assessment

### Task Description

#### OBJECTIVES

This assessment item relates to the course learning outcomes 1 to 6.

Note: Assessment item should be submitted online via "Assessment" in the course Moodle site. Only ONE file (doc, docx) can be submitted.

#### GUIDELINES

You must submit a satisfactory workbook in order to receive a passing grade for this unit. The Workbook is a compulsory component of the course as it supplements the other assessments. You will need to show appropriate use of procedures, discussion, evaluation and calculations in your Workbook answers. Set out your work clearly. Work is to be typed.

Handwritten work will only be accepted when associated with sketching, drawing or numerical calculations. Treat each activity as a 'new chapter' by starting a new page in the Workbook.

#### ACTIVITIES

Some workbook activities may take a few weeks to complete so you may need to proceed with your study of the next topic before you finish these activities.

##### Activity 1

Recently, the exchange rate of the Australian Dollar has fluctuated greatly. Discuss the impact of the exchange rate fluctuation on the demand and supply of the residential property market. (around 400 words)

##### Activity 2

Discuss the possible reasons why some commercial projects fail, even if they are deemed as feasible in feasibility study reports. (around 400 words)

##### Activity 3

What is a sensitivity analysis and how is it used in investment decision making? Provide an example to further explain your answer. The example in the course study guide should not be used here (around 400 words).

##### Activity 4

Explain the term "inflation". Why is it relevant to infrastructure procurements? (around 400 words)

##### Activity 5

Indices are used to forecast future movements in building costs. However, they can be criticized as not providing an accurate assessment of these price movements. What are these criticisms? (around 400 words)

##### Activity 6

Discuss the relationship between value management and risk management. (around 400 words)

### Assessment Due Date

Exam Week Monday (11 Feb 2019) 11:45 pm AEST

### Return Date to Students

Exam Week Friday (15 Feb 2019)

**Weighting**

16%

**Minimum mark or grade**

8

**Assessment Criteria**

Item	Max score	Criteria	Breakdown
Activity 1	2	Discuss how the exchange rate fluctuation impacts on the demand of the residential property market	1
		Discuss how the exchange rate fluctuation impacts on the supply of the residential property market	1
Activity 2	2	Discuss the reasons why some commercial projects fail	2
Activity 3	2	Explain what is a sensitivity analysis	0.5
		Discuss how sensitivity analysis is used in investment decision making with an example	1.5
Activity 4	2	Explain what is inflation	0.5
		Discuss why inflation is relevant to infrastructure procurements?	1.5
Activity 5	2	Discuss the criticisms on the cost indices	2
Activity 6	2	Discuss the relationship between value management and risk management	2
Presentation and layout	2	Table of content, presentation, grammatic issues, etc.	2
References	2	Both in text citation and bibliography are required. High similarity will not be accepted.	2

**Referencing Style**

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

**Submission**

Online

**Learning Outcomes Assessed**

- Understand the research methods and decision processes that are undertaken from the initial project or development idea through to project feasibility
- Understand the purpose and methodology in conducting feasibility studies and initial project evaluation
- Be familiar with purpose and methodology in conducting cost benefit analysis and investment decision techniques
- Understand the issues associated with investment strategies and pricing techniques that can influence the initial project accept or reject decision
- Be familiar with the methodologies and techniques used to assist cost control and benchmarking for project feasibilities and project evaluations
- Understand the techniques used to appraise a project using the quantitative and qualitative techniques of value management to increase the likelihood of better long-term outcomes for a project.

**Graduate Attributes**

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

## 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