



BLCN29001 Construction Technology

Term 2 - 2024

Profile information current as at 29/07/2024 05:53 pm

All details in this unit profile for BLCN29001 have been officially approved by CQU University 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

This unit provides an introduction to modern building construction technology with an emphasis on multi-unit and low-rise construction. In this unit, you will briefly touch upon the legislative requirements applicable to modern building construction. You will discover how key functions and performance requirements are linked to material selection, structural design, and construction methods. You will learn about advancements in materials technology and construction methods, how they are interlinked and all come together to influence the construction of buildings. The unit relates and outlines procedures, principles, and methods of modern construction of residential and commercial projects including multi-story buildings as designated by the National Construction Code for building classes 1 to 10.

Details

Career Level: *Postgraduate*

Unit Level: *Level 9*

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 2 - 2024

- Brisbane
- Online
- Sydney

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 Postgraduate 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: 30%

2. **Research Assignment**

Weighting: 50%

3. **Online Test**

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 Evaluations

Feedback

The majority of students selected exceptional rating. However, the main revision requested by students is to slow the presentations down and include more discussion on the various topics.

Recommendation

The main revision requested by students is to slow the presentations down and include more in class discussion on the various topics.

Unit Learning Outcomes

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

1. Critically evaluate modern construction technology methods as they relate to the building and construction industry within national and international construction sectors
2. Synthesise and evaluate the range of contemporary construction technology methods and how these affect construction management teams in terms of appropriate management techniques to ensure the construction is delivered on time, within budget, and quality
3. Consider economic, environmental, social, and cultural sustainability when selecting relevant construction technology
4. Generate and justify solutions to complex construction problems using cognitive, technical, and creative skills.

The Royal Australian Institute of Building has provided provisional approval.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes			
	1	2	3	4
1 - Written Assessment - 30%	•	•		
2 - Research Assignment - 50%			•	•
3 - Online Test - 20%	•		•	

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
1 - Knowledge	○	○		
2 - Communication	○	○	○	○
3 - Cognitive, technical and creative skills		○	○	
4 - Research			○	○
5 - Self-management				
6 - Ethical and Professional Responsibility				
7 - Leadership				
8 - 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
1 - Written Assessment - 30%	○	○	○					
2 - Research Assignment - 50%		○	○	○				
3 - Online Test - 20%	○				○			

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)

Referencing Style

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

Teaching Contacts

Hassan Khan Unit Coordinator
h.khan@cqu.edu.au

Schedule

Week 1 - 08 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
A brief introduction to legislation, building permits, public protection, and demolition.		On-going quizzes are supplied at tutorials Assignments 1 and 2 handed out - see Moodle for details

Week 2 - 15 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Basement excavation and support.		

Week 3 - 22 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Underpinning, underground wall construction, and dewatering.		On-going quizzes are supplied at tutorials.

Week 4 - 29 Jul 2024

Module/Topic	Chapter	Events and Submissions/Topic
Site logistics, vertical access, and waste management.		On-going quizzes are supplied at tutorials.

Week 5 - 05 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Foundations and footings.		On-going quizzes are supplied at tutorials.

Vacation Week - 12 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Vacation Week: No lectures or tutorials		Assignment 1: To be handed in Assignment No 1 - see Moodle site for specific details Due: Vacation Week Monday (12 Aug 2024) 11:45 pm AEST

Week 6 - 19 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Core construction, bracing, and formwork.		On-going quizzes are supplied at tutorials.

Week 7 - 26 Aug 2024

Module/Topic	Chapter	Events and Submissions/Topic
Slab, floor, column, & beams.		On-going quizzes are supplied at tutorials.

Week 8 - 02 Sep 2024

Module/Topic	Chapter	Events and Submissions/Topic
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External facades and cladding

On-going quizzes are supplied at tutorials.

Week 9 - 09 Sep 2024

Module/Topic

Chapter

Events and Submissions/Topic

Building services & fire protection

On-going quizzes are supplied at tutorials.

Week 10 - 16 Sep 2024

Module/Topic

Chapter

Events and Submissions/Topic

Roofing, drainage, and waterproofing.

On-going quizzes are supplied at tutorials.

Week 11 - 23 Sep 2024

Module/Topic

Chapter

Events and Submissions/Topic

Building motion stability & vertical transport systems.

On-going quizzes are supplied at tutorials.

Week 12 - 30 Sep 2024

Module/Topic

Chapter

Events and Submissions/Topic

Internal fitout, commissioning, & handover.

Assignment 2: hand-in date

Assignment No 2 - see Moodle site for details Due: Week 12 Monday (30 Sept 2024) 11:45 pm AEST

Review/Exam Week - 07 Oct 2024

Module/Topic

Chapter

Events and Submissions/Topic

Exam Week - 14 Oct 2024

Module/Topic

Chapter

Events and Submissions/Topic

ONLINE TEST DURING LECTURE TIMES:
SPECIFIC DATE AND TIME TO BE ADVISED

Assessment Tasks

1 Assignment No 1 - see Moodle site for specific details

Assessment Type

Written Assessment

Task Description

Assignment 1 - General description - Select a construction method as approved and focus on the technical aspects of your topic.

You need to commence the 3000 word assignment immediately.

N.B. Go to the Moodle site for specific details.

You need to obtain a pass in this assignment to pass this unit

Assessment Due Date

Vacation Week Monday (12 Aug 2024) 11:45 pm AEST

Submit on line via Moodle and pdf through Turnitin

Return Date to Students

Week 7 Friday (30 Aug 2024)

Student access Turnitin - Marks and feedback will be released as soon as all the marking process is completed. Students will be advised

Weighting

30%

Assessment Criteria

The assignment will be assessed on the quality of the work submitted, relevance, and coherence to the specific question and tasks. This includes clear argumentation and use of quality references (in-text and bibliography). The content prepared is to expand beyond the learning material provided and demonstrate the student's development of the unit learning outcomes and graduate attributes.

Students will work with a marking rubric for self-review and receive formative and summative feedback.

Referencing Style

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

Submission

Online

Submission Instructions

Submission details to be provided on the Moodle site

Learning Outcomes Assessed

- Critically evaluate modern construction technology methods as they relate to the building and construction industry within national and international construction sectors
- Synthesise and evaluate the range of contemporary construction technology methods and how these affect construction management teams in terms of appropriate management techniques to ensure the construction is delivered on time, within budget, and quality

Graduate Attributes

- Knowledge
- Communication
- Cognitive, technical and creative skills

2 Assignment No 2 - see Moodle site for details

Assessment Type

Research Assignment

Task Description

Assignment 2: General description - Undertake a literature review to identify two case studies—one Australian and one international (preferably from your home country)—of high-rise building projects that used innovative technology or systems to facilitate construction.

1. Provide a detailed overview of both projects and the technology used. Your research is crucial in comparing how both countries' processes and legislative requirements differ.
 2. Based on your research, analyse and evaluate how this innovative (modern) technology addresses managing risks, positively and negatively impacts cost and time, and how it differs between countries.
 3. Critically analyse the impact of technology on economic, environmental, social, and cultural sustainability and formulate a conclusion with your recommendations for improving future construction technology processes.
- You need to commence the 3500 word maximum assignment immediately in order to obtain the research bibliography evidence.

N.B. Go to the Moodle site for specific details.

You need to obtain a pass in this assignment to pass this unit

Assessment Due Date

Week 12 Monday (30 Sept 2024) 11:45 pm AEST

Submit on line via Moodle and pdf via Turnitin

Return Date to Students

Exam Week Monday (14 Oct 2024)

Student access Turnitin - Marks and feedback will be released as soon as the marking process is completed

Weighting

50%

Assessment Criteria

The assignment will be assessed on the quality of the work submitted, relevance, and coherence to the specific question and tasks. This includes clear argumentation and use of quality references (in-text and bibliography). The content prepared is to expand beyond the learning material provided and demonstrate the student's development of the unit learning outcomes and graduate attributes.

Students will work with a marking rubric for self-review and receive formative and summative feedback.

Referencing Style

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

Submission

Online

Learning Outcomes Assessed

- Consider economic, environmental, social, and cultural sustainability when selecting relevant construction technology
- Generate and justify solutions to complex construction problems using cognitive, technical, and creative skills.

Graduate Attributes

- Communication
- Cognitive, technical and creative skills
- Research

3 CLASS TEST

Assessment Type

Online Test

Task Description

CLASS TEST DURING EXAM WEEK: ***SPECIFIC DATE AND TIME TO BE ADVISED***

Assessment Due Date

Return Date to Students

Weighting

20%

Assessment Criteria

Class test: You need to pass the class test to pass this unit

Referencing Style

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

Submission

Offline

Learning Outcomes Assessed

- Critically evaluate modern construction technology methods as they relate to the building and construction industry within national and international construction sectors
- Consider economic, environmental, social, and cultural sustainability when selecting relevant construction technology

Graduate Attributes

- Knowledge
- Self-management

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