



# BLAR12041 *Building Materials 2*

## Term 3 - 2019

Profile information current as at 13/05/2024 04:24 pm

All details in this unit profile for BLAR12041 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

This unit will provide you with knowledge of physical and chemical properties, usage, durability, innovation and disposal of brick, block masonry, ceramics, polymers, glass, bituminous materials, synthetics, paints and hazardous materials. You will learn about relevant Australian and International Standards; quality control procedures for the manufacture, testing and handling of materials; life cycle impacts and conditions through recycling, re-use, by-products synergy and resource efficiency.

#### Details

Career Level: *Undergraduate*

Unit Level: *Level 2*

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 - 2019

- 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: 20%

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

Weighting: 30%

#### 3. **Online Quiz(zes)**

Weighting: 10%

#### 4. **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 Unit evaluation

##### Feedback

Assignments took along time to receive back.

##### Recommendation

The feedbacks will be returned to students within 14 days after the due date and before the due date of the next assignment.

## Unit Learning Outcomes

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

1. Discuss material properties for selected commonly used building products
2. Explain the application of materials in buildings, their lifecycle impact and consideration for recycling and reuse
3. Interpret and communicate clearly technical information about Quality Assurance and Codes of Practice using relevant standards
4. Apply analytical thinking and researching skills using library and Internet resources
5. Show skills in communication and presentation of building materials concepts.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



N/A  
Level



Introductory  
Level



Intermediate  
Level



Graduate  
Level



Professional  
Level



Advanced  
Level

### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Written Assessment - 20%	•	•	•	•	•
2 - Written Assessment - 30%	•	•	•	•	•
3 - Online Quiz(zes) - 10%	•	•	•		
4 - Presentation and Written Assessment - 40%	•	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
1 - Communication	•	•	•	•	•
2 - Problem Solving	•	•	•	•	•

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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 - 20%	•	•	•	•		•	•	•		
2 - Written Assessment - 30%	•	•	•	•		•	•	•		
3 - Online Quiz(zes) - 10%	•	•	•	•		•		•		
4 - 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)

## 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 - 11 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
1. Environmentally responsible selection of materials		

### Week 2 - 18 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
2. Material properties - including incompatibilities		

### Week 3 - 25 Nov 2019

Module/Topic	Chapter	Events and Submissions/Topic
3. Chemical-based products - introduction		

### Week 4 - 02 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
4. Building membranes		

### Vacation Week - 09 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic

### Week 5 - 16 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
5. Paints - all types		<b>Assignment 1</b> Due: Week 5 Monday (16 Dec 2019) 11:45 pm AEST

### Week 6 - 23 Dec 2019

Module/Topic	Chapter	Events and Submissions/Topic
6. Ceramics 1 - Glass		

### Week 7 - 06 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
7. Ceramics 2 - Clay bricks		

### Week 8 - 13 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
8. Ceramics 3 - Tiles and sanitary fixtures; including clay and alternative materials		<b>Assignment 2</b> Due: Week 8 Friday (17 Jan 2020) 11:45 pm AEST

### Week 9 - 20 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
9. Concrete blocks plus Various base materials		

### Week 10 - 27 Jan 2020

Module/Topic	Chapter	Events and Submissions/Topic
10. Insulation principles, materials and properties		

**Week 11 - 03 Feb 2020**

Module/Topic	Chapter	Events and Submissions/Topic
11. Adhesives and sealants		<b>Assignment 3 quiz</b> Due: Week 11 Wednesday (5 Feb 2020) 11:45 pm AEST

**Week 12 - 10 Feb 2020**

Module/Topic	Chapter	Events and Submissions/Topic
12. Removal of hazardous materials		

**Exam Week - 17 Feb 2020**

Module/Topic	Chapter	Events and Submissions/Topic
		<b>Assignment 4</b> Due: Exam Week Monday (17 Feb 2020) 11:45 pm AEST

## Assessment Tasks

### 1 Assignment 1

**Assessment Type**

Written Assessment

**Task Description**

This assessment item relates to course learning outcomes 1 and 2; with associated implications for learning outcome 3. All of these assessment items provide an opportunity to demonstrate the transferable skills in learning outcomes 4 and 5.

Tasks will focus on successes and failures in material use and plastics or membranes for exterior surface cladding.

**Assessment Due Date**

Week 5 Monday (16 Dec 2019) 11:45 pm AEST

**Return Date to Students**

Week 7 Monday (6 Jan 2020)

**Weighting**

20%

**Assessment Criteria**

Q1 Successes and failures in material use?	10
Q2 Plastics or membranes for exterior surface cladding?	5
Presentation and Referencing?	5

**Referencing Style**

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

**Submission**

Online

**Learning Outcomes Assessed**

- Discuss material properties for selected commonly used building products
- Explain the application of materials in buildings, their lifecycle impact and consideration for recycling and reuse
- Interpret and communicate clearly technical information about Quality Assurance and Codes of Practice using relevant standards
- Apply analytical thinking and researching skills using library and Internet resources
- Show skills in communication and presentation of building materials concepts.

**Graduate Attributes**

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy

- Information Technology Competence
- Cross Cultural Competence
- Ethical practice

## 2 Assignment 2

### Assessment Type

Written Assessment

### Task Description

This assessment item relates to learning outcomes 1, 2 and 3 and the content will be relevant to Topics 5, 6, 7 and 8. Tasks will ask you to find information from your own research endeavors about glass and brick properties and its application within buildings.

### Assessment Due Date

Week 8 Friday (17 Jan 2020) 11:45 pm AEST

### Return Date to Students

Week 10 Friday (31 Jan 2020)

### Weighting

30%

### Assessment Criteria

Q1 Glass case Study	12
Q2 Clay bricks case study	12
Presentation and Referencing	6

### Referencing Style

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

### Submission

Online

### Learning Outcomes Assessed

- Discuss material properties for selected commonly used building products
- Explain the application of materials in buildings, their lifecycle impact and consideration for recycling and reuse
- Interpret and communicate clearly technical information about Quality Assurance and Codes of Practice using relevant standards
- Apply analytical thinking and researching skills using library and Internet resources
- Show skills in communication and presentation of building materials concepts.

### Graduate Attributes

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

## 3 Assignment 3 quiz

### Assessment Type

Online Quiz(zes)

### Task Description

Assignment 3 is an online quiz and will require you to answer multiple choice questions based on Topics 5 to 9.

### Number of Quizzes

10

### Frequency of Quizzes

### Assessment Due Date

Week 11 Wednesday (5 Feb 2020) 11:45 pm AEST

### Return Date to Students

Week 11 Thursday (6 Feb 2020)

The feedback is returned automatically by the system

### Weighting

10%

### Assessment Criteria

Successful completion of the online quiz from two attempts. The higher grade of the two attempts will be taken. The quiz will be marked automatically by the system.

### Referencing Style

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

### Submission

Online

### Submission Instructions

Quiz accessed via the Moodle portal

### Learning Outcomes Assessed

- Discuss material properties for selected commonly used building products
- Explain the application of materials in buildings, their lifecycle impact and consideration for recycling and reuse
- Interpret and communicate clearly technical information about Quality Assurance and Codes of Practice using relevant standards

### Graduate Attributes

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

## 4 Assignment 4

### Assessment Type

Presentation and Written Assessment

### Task Description

In this assessment task, you need to address case studies of aluminum composite cladding panels in multi-story buildings, 'blockwork retaining walls' in basements and removal of hazardous materials.

### Assessment Due Date

Exam Week Monday (17 Feb 2020) 11:45 pm AEST

### Return Date to Students

Exam Week Friday (21 Feb 2020)

### Weighting

40%

### Assessment Criteria

Q1. Case Study - complex glass or brick use in significant buildings	12
Q2. Successes and failures of concrete blockwork retaining walls in basements	12
Q3. Removal of hazardous materials	8
Presentation and Referencing	8

### Referencing Style

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

### Submission

Online

### Learning Outcomes Assessed

- Discuss material properties for selected commonly used building products



- Explain the application of materials in buildings, their lifecycle impact and consideration for recycling and reuse
- Interpret and communicate clearly technical information about Quality Assurance and Codes of Practice using relevant standards
- Apply analytical thinking and researching skills using library and Internet resources
- Show skills in communication and presentation of building materials concepts.

#### **Graduate Attributes**

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