



# BLAR11033 *Building Materials 1*

## Term 1 - 2024

Profile information current as at 12/05/2024 09:40 am

All details in this unit profile for BLAR11033 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 develop your knowledge on the properties of building materials. You will also examine testing (both destructive and non-destructive) of timber, concrete, and metals in relation to: Timber - grading, strength tests, durability and protection of timber products; Concrete - tests on aggregates, fresh and hardened concrete properties, durability studies and test methods, and concrete protection; and Metal - ferrous and non-ferrous metal and its alloys, corrosion of metals and protection, and strength properties tests. This unit also develops your understanding of: Protection from corrosion and destruction; Identifying the suitable grade material for the site conditions; and Relevant Australian and international Standards. You will be provided with an introduction to: the development and application of materials from industry by-products and re-cycling of materials and life-cycle analysis of materials.

#### 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

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 1 - 2024

- 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: 30%

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

Weighting: 30%

#### 3. **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 Survey

##### Feedback

Students suggested the inclusion of learning materials that introduce innovative and progressive building materials.

##### Recommendation

We review the unit resources and ensure that the content is up-to-date with the current innovation and trends in the Australian construction industry.

#### Feedback from Discussions in the Zoom sessions and unit forums.

##### Feedback

Students pointed to the need for the inclusion of a textbook that is Australian based.

##### Recommendation

We will continue to update learning resources on Building Materials. A textbooks that is focused on the Australian construction industry will be included, once it becomes available.

## Unit Learning Outcomes

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

1. Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis.
2. Apply the Australian and international standards relevant to building materials.
3. Conduct a literature review to answer specific questions related to building materials.
4. Report on building materials through effective written communication.

## 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 - Written Assessment - 30%	•	•	•	•
3 - Written Assessment - 40%	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes			
	1	2	3	4
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 - 30%	•	•	•	•		•	•			
2 - Written Assessment - 30%	•	•	•	•		•	•			
3 - Written Assessment - 40%	•	•	•	•		•	•			

## Textbooks and Resources

### Textbooks

BLAR11033

#### Prescribed

#### Materials for Architects and Builders

Edition: 6th (2020)

Authors: Arthur Lyons

Routledge

ISBN: 9780815363385

Binding: Paperback

### IT Resources

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

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Microphone and camera for use with Zoom
- MS Teams

## Referencing Style

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

## Teaching Contacts

**Kevin Stone** Unit Coordinator  
[k.j.stone@cqu.edu.au](mailto:k.j.stone@cqu.edu.au)

## Schedule

### Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Topic 1: Introduction to Building Materials		

### Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Topic 2: Brick and Brickwork (Weeks 2 and 3)		

### Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Topic 2: Brick and Brickwork (Weeks 2 and 3)		

**Week 4 - 25 Mar 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 3: Block and Blockwork		<b>Written Assessment 1 (30%)</b> Due: Week 4 Friday (29 Mar 2024) 11:45 pm AEST

**Week 5 - 01 Apr 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 4: Timber and Timber Products (Weeks 5 and 6)		Assignment one due the 4th

**Vacation Week - 08 Apr 2024**

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

**Week 6 - 15 Apr 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 4: Timber and Timber Products (Weeks 5 and 6)		

**Week 7 - 22 Apr 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 5: Lime, Cement, and Concrete (Weeks 7 and 8)		

**Week 8 - 29 Apr 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 5: Lime, Cement, and Concrete (Weeks 7 and 8)		Assignment two due 2nd  <b>Written Assignment 2 (30%)</b> Due: Week 8 Friday (3 May 2024) 11:45 pm AEST

**Week 9 - 06 May 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 6: Metallic Materials (weeks 9 and 10)		

**Week 10 - 13 May 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 6: Metallic Materials (weeks 9 and 10)		

**Week 11 - 20 May 2024**

Module/Topic	Chapter	Events and Submissions/Topic
Topic 7. Sustainability in Material Use (weeks 11 and 12)		<b>Written Assignment 3 (40%)</b> Due: Week 11 Friday (24 May 2024) 11:45 pm AEST

**Week 12 - 27 May 2024**

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

## Topic 7. Sustainability in Material Use (weeks 11 and 12)

### Review/Exam Week - 03 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
		Assignment three due the 6th

### Exam Week - 10 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
--------------	---------	------------------------------

## Term Specific Information

The unit introduces the student to basic construction materials, their properties and common uses.

## Assessment Tasks

### 1 Written Assessment 1 (30%)

#### Assessment Type

Written Assessment

#### Task Description

Brick and concrete block in construction is to be researched and critically analysed. Conduct a literature review to answer specific questions related to building materials to explain building them, including the types, manufacturing process, properties, usage in construction and the life cycle analysis.

#### Assessment Due Date

Week 4 Friday (29 Mar 2024) 11:45 pm AEST

Submit the assessment item as a word document on or before the due date and time. Late submission penalty is 5% per day of the allotted marks.

#### Return Date to Students

Week 6 Friday (19 Apr 2024)

#### Weighting

30%

#### Assessment Criteria

As detailed on the assignment brief

#### Referencing Style

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

#### Submission

Online

#### Submission Instructions

Submit via Turnitin

#### Learning Outcomes Assessed

- Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis.
- Apply the Australian and international standards relevant to building materials.
- Conduct a literature review to answer specific questions related to building materials.
- Report on building materials through effective written communication.

#### Graduate Attributes

- Communication

- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence
- Cross Cultural Competence

## 2 Written Assignment 2 (30%)

### Assessment Type

Written Assessment

### Task Description

Timber in construction is to be researched and critically analysed. Conduct a literature review to answer specific questions related to building materials. Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis and apply Australian and international standards relevant to the materials

### Assessment Due Date

Week 8 Friday (3 May 2024) 11:45 pm AEST

Submit the assessment item as a word document on or before the due date and time. Late submission penalty is 5% per day of the allotted marks.

### Return Date to Students

Week 10 Friday (17 May 2024)

### Weighting

30%

### Assessment Criteria

As detailed on the assignment brief

### Referencing Style

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

### Submission

Online

### Learning Outcomes Assessed

- Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis.
- Apply the Australian and international standards relevant to building materials.
- Conduct a literature review to answer specific questions related to building materials.
- Report on building materials through effective written communication.

### Graduate Attributes

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

## 3 Written Assignment 3 (40%)

### Assessment Type

Written Assessment

### Task Description

Concrete as a building material is to be researched and critically analysed. Conduct a literature review to answer specific questions related to building materials. Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis and apply Australian and international standards relevant to the materials

### Assessment Due Date

Week 11 Friday (24 May 2024) 11:45 pm AEST

Submit the assessment item as a word document on or before the due date and time. Late submission penalty is 5% per day of the allotted marks.



**Return Date to Students**

Exam Week Friday (14 June 2024)

**Weighting**

40%

**Assessment Criteria**

As detailed on the assignment brief

**Referencing Style**

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

**Submission**

Online

**Learning Outcomes Assessed**

- Explain building materials, including the types, manufacturing process, properties, usage in construction and the life cycle analysis.
- Apply the Australian and international standards relevant to building materials.
- Conduct a literature review to answer specific questions related to building materials.
- Report on building materials through effective written communication.

**Graduate Attributes**

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