



# BLAR11033 *Building Materials 1*

## Term 1 - 2021

Profile information current as at 13/12/2025 05:46 pm

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 - 2021

- 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 Student Feedback

##### Feedback

The resources for assessment 3 were not so helpful.

##### Recommendation

These will be reviewed and aligned with the new 2021 assessment questions.

#### Feedback from Student and Lecturer

##### Feedback

Moodle needs some improving and MS Teams although an improvement still needs a lot of development.

##### Recommendation

This unit was one of the first to adopt MS Teams for improved communication and engagement and the implementation will continue to improve and develop. Most students found MS Teams to be preferable to Moodle. Moodle will be maintained alongside MS Teams as a backup. Moodle will undergo the refresh project before the unit is next offered.

#### Feedback from Student Feedback

##### Feedback

Amount of referencing to British Standards and learning from texts that reference the English building industry.

##### Recommendation

This is a developing improvement with the texts as Australian ones become available. The British Standards are being replaced for the next term.

## 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% | •                 | • | • | • |

| Assessment Tasks             | Learning Outcomes |   |   |   |
|------------------------------|-------------------|---|---|---|
|                              | 1                 | 2 | 3 | 4 |
| 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

#### Additional Textbook Information

The Ebook of the textbook can be accessed from CQUni library by clicking [HERE](#) and logging in using your university username and password. Students may choose to use that instead of purchasing a hard copy of the book.

However, if you prefer your own personal copy, you can purchase one. Copies are available at the CQUni Bookshop here: <http://bookshop.cqu.edu.au>

### IT Resources

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

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Endnote (available through Library - see Moodle link)

## Referencing Style

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

For further information, see the Assessment Tasks.

## Teaching Contacts

**Neda Abbasi** Unit Coordinator

[n.abbasi@cqu.edu.au](mailto:n.abbasi@cqu.edu.au)

## Schedule

### Week 1 - 08 Mar 2021

| Module/Topic                       | Chapter                                                        | Events and Submissions/Topic |
|------------------------------------|----------------------------------------------------------------|------------------------------|
| Introduction to Building Materials | Mitchell's Materials, 5th ed, Chapter 1:<br>General Properties |                              |

### Week 2 - 15 Mar 2021

| Module/Topic        | Chapter                                                                          | Events and Submissions/Topic |
|---------------------|----------------------------------------------------------------------------------|------------------------------|
| Brick and Brickwork | Materials for Architects and Builders,<br>6th ed, Chapter 1: Brick and brickwork |                              |

### Week 3 - 22 Mar 2021

| Module/Topic                    | Chapter                                                                          | Events and Submissions/Topic |
|---------------------------------|----------------------------------------------------------------------------------|------------------------------|
| Brick and Brickwork (continued) | Materials for Architects and Builders,<br>6th ed, Chapter 1: Brick and brickwork |                              |

**Week 4 - 29 Mar 2021**

| Module/Topic        | Chapter                                                                       | Events and Submissions/Topic |
|---------------------|-------------------------------------------------------------------------------|------------------------------|
| Block and Blockwork | Materials for Architects and Builders, 6th ed, Chapter 2: Block and blockwork |                              |

**Week 5 - 05 Apr 2021**

| Module/Topic               | Chapter                                                                              | Events and Submissions/Topic                                            |
|----------------------------|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Timber and Timber Products | Materials for Architects and Builders, 6th ed, Chapter 4: Timber and timber products | <b>Assessment item-1</b> Due: Week 5 Tuesday (6 Apr 2021) 11:45 pm AEST |

**Vacation Week - 12 Apr 2021**

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

**Week 6 - 19 Apr 2021**

| Module/Topic                           | Chapter                                                                              | Events and Submissions/Topic |
|----------------------------------------|--------------------------------------------------------------------------------------|------------------------------|
| Timber and Timber Products (continued) | Materials for Architects and Builders, 6th ed, Chapter 4: Timber and timber products |                              |

**Week 7 - 26 Apr 2021**

| Module/Topic               | Chapter                                                                             | Events and Submissions/Topic |
|----------------------------|-------------------------------------------------------------------------------------|------------------------------|
| Lime, Cement, and Concrete | Materials for Architects and Builders, 6th ed, Chapter 3: Lime, cement and concrete |                              |

**Week 8 - 03 May 2021**

| Module/Topic                           | Chapter                                                                             | Events and Submissions/Topic                                            |
|----------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| Lime, Cement, and Concrete (continued) | Materials for Architects and Builders, 6th ed, Chapter 3: Lime, cement and concrete | <b>Assessment item-2</b> Due: Week 8 Tuesday (4 May 2021) 11:45 pm AEST |

**Week 9 - 10 May 2021**

| Module/Topic       | Chapter                                                                                  | Events and Submissions/Topic |
|--------------------|------------------------------------------------------------------------------------------|------------------------------|
| Metallic Materials | Materials for Architects and Builders, 6th ed, Chapter 5: Ferrous and non-ferrous metals |                              |

**Week 10 - 17 May 2021**

| Module/Topic                   | Chapter                                                                                  | Events and Submissions/Topic |
|--------------------------------|------------------------------------------------------------------------------------------|------------------------------|
| Metallic Materials (continued) | Materials for Architects and Builders, 6th ed, Chapter 5: Ferrous and non-ferrous metals |                              |

**Week 11 - 24 May 2021**

| Module/Topic                   | Chapter                                                                                                      | Events and Submissions/Topic |
|--------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------|
| Sustainability in Material Use | Materials for Architects and Builders, 6th ed, Chapter 18: Sustainability and Building Information Modelling |                              |

**Week 12 - 31 May 2021**

| Module/Topic                               | Chapter                                                                                           | Events and Submissions/Topic |
|--------------------------------------------|---------------------------------------------------------------------------------------------------|------------------------------|
| Sustainability in Material Use (continued) | Materials for Architects and Builders, 6th ed, Chapter 16: Energy-saving materials and components |                              |

**Review/Exam Week - 07 Jun 2021**

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

**Exam Week - 14 Jun 2021**

Module/Topic

Chapter

Events and Submissions/Topic

## Assessment Tasks

### 1 Assessment item-1

**Assessment Type**

Written Assessment

**Task Description**

This assessment questions and exercises cover topics of "Brick and Brickwork" and "Block and Blockwork." It is related to the unit learning outcomes 1 and 2 with implications for learning outcomes 3 and 4.

**Assessment Due Date**

Week 5 Tuesday (6 Apr 2021) 11:45 pm AEST

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

**Return Date to Students**

Week 7 Tuesday (27 Apr 2021)

Online

**Weighting**

30%

**Assessment Criteria**

Assessment criteria are set in the assessment description sheet under a section called "Marking Rubrics."

These criteria cover the following aspects:

**Presentation and layout**—includes demonstrated ability to prepare a professional technical report as part of the audit process, use of grammar, the selection of typeface, written and general appearance of the document or assignment, attention to detail and quality of arrangement with regard to page numbering, headings, margins, footnotes and similar details to provide a professional document presentation.

**Content**—includes the accuracy and relevance of the information supplied in relation to the set task, using an 'easy to read' language style.

**References**—includes the use of the Harvard Referencing System to reference information, data, tables or images used when preparing a response to the set task.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

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

## 2 Assessment item-2

### Assessment Type

Written Assessment

### Task Description

This assessment questions and exercises cover the topic of "Timber and Timber Products." It is related to the unit learning outcomes 1, 2, 3, and 4.

### Assessment Due Date

Week 8 Tuesday (4 May 2021) 11:45 pm AEST

Submit the assessment item 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 Tuesday (18 May 2021)

Online

### Weighting

30%

### Assessment Criteria

Assessment criteria are set in the assessment description sheet under a section called "Marking Rubrics."

These criteria cover the following aspects:

**Presentation and layout**—includes demonstrated ability to prepare a professional technical report as part of the audit process, use of grammar, the selection of typeface, written and general appearance of the document or assignment, attention to detail and quality of arrangement with regard to page numbering, headings, margins, footnotes and similar details to provide a professional document presentation.

**Content**—includes the accuracy and relevance of the information supplied in relation to the set task, using an 'easy to read' language style.

**References**—includes the use of the Harvard Referencing System to reference information, data, tables or images used when preparing a response to the set task.

### Referencing Style

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

### Submission

Online

### Submission Instructions

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 Assessment item-3

#### Assessment Type

Written Assessment

#### Task Description

This assessment questions and exercises cover topics of "Lime, Cement, and Concrete", "Metallic Materials", and "Sustainability in Material Use." It is related to the unit learning outcomes 1, 2, 3, and 4.

#### Assessment Due Date

Review/Exam Week Tuesday (8 June 2021) 11:45 pm AEST

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

#### Return Date to Students

Within two weeks after the submission due date but before the certification of grades.

#### Weighting

40%

#### Minimum mark or grade

To succeed in this unit, you must achieve a minimum of 40% in assessment 3 (16 out of 40).

#### Assessment Criteria

Assessment criteria are set in the assessment description sheet under a section called "Marking Rubrics."

These criteria cover the following aspects:

**Presentation and layout**—includes demonstrated ability to prepare a professional technical report as part of the audit process, use of grammar, the selection of typeface, written and general appearance of the document or assignment, attention to detail and quality of arrangement with regard to page numbering, headings, margins, footnotes and similar details to provide a professional document presentation.

**Content**—includes the accuracy and relevance of the information supplied in relation to the set task, using an 'easy to read' language style.

**References**—includes the use of the Harvard Referencing System to reference information, data, tables or images used when preparing a response to the set task.

#### Referencing Style

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

#### Submission

Online

#### Submission Instructions

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