



BLAR12041 *Building Materials 2*

Term 3 - 2017

Profile information current as at 13/05/2024 03:35 am

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 - 2017

- 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: 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

The assessment tasks requirements weren't very clear.

Recommendation

Clarify the requirements on online forum and lectures.

Feedback from Unit evaluation

Feedback

Study Guides did not have much valuable information.

Recommendation

Update the study guide to make it more informative.

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



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	•	•	•	•	•
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

BLAR12041

Prescribed

Materials for Architects and Builders

Edition: 4th edn (2010)

Authors: Lyons, A.

Routledge Florence

New York , USA

Binding: Hardcover

[CQUni Bookshop](#)

Additional Textbook Information

The textbook is available in the CQUni library as ebook. Students are not required to buy the textbook.

However, if you prefer a paper textbook, the current edition can be purchased from 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)

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

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Schedule

Week 1 - 06 Nov 2017

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

Week 2 - 13 Nov 2017

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

Week 3 - 20 Nov 2017

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

Week 4 - 27 Nov 2017

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

Vacation Week - 04 Dec 2017

Module/Topic	Chapter	Events and Submissions/Topic
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Week 5 - 11 Dec 2017

Module/Topic	Chapter	Events and Submissions/Topic
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A1 due on 15 Dec 2017

5. Paints - all types

Assignment 1 Due: Week 5 Friday
(15 Dec 2017) 11:45 pm AEST

Week 6 - 18 Dec 2017

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

Week 7 - 01 Jan 2018

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

Week 8 - 08 Jan 2018

Module/Topic	Chapter	Events and Submissions/Topic
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8. Ceramics 3 PLUS+ - Tiles and
sanitary fixtures; including clay and
alternative materials

A2 due on 12 Jan 2018

Assignment 2 Due: Week 8 Friday
(12 Jan 2018) 11:45 pm AEST

Week 9 - 15 Jan 2018

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

Week 10 - 22 Jan 2018

Module/Topic	Chapter	Events and Submissions/Topic
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11. Adhesives and sealants

Week 11 - 29 Jan 2018

Module/Topic	Chapter	Events and Submissions/Topic
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A3 online quiz due on 30 Jan 2018

12. Removal of hazardous materials

Assignment 3 quiz Due: Week 11
Tuesday (30 Jan 2018) 11:45 pm AEST

Week 12 - 05 Feb 2018

Module/Topic	Chapter	Events and Submissions/Topic
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A4 due on 9 Feb 2018

12. Removal of hazardous materials

Assignment 4 Due: Week 12 Friday
(9 Feb 2018) 11:45 pm AEST

Exam Week - 12 Feb 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Review/Exam Week - 12 Feb 2018

Module/Topic	Chapter	Events and Submissions/Topic
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Assessment Tasks

1 Assignment 1

Assessment Type

Written Assessment

Task Description

Q1 Successes and failures in materials use

Overview

You will need to choose two different materials relevant to this course. One of those materials must be relevant to topic 3 (chemical-based products) or topic 4 (building membranes). You will then need to present an example of a 'success' and a 'failure' for each material type that you have chosen

To be realistic, the 'success' may be something that looks great, serves a useful function (which must be clearly defined) and (this is the realistic bit) has NOT yet failed (and which of course, to be fair, may NEVER fail).

The 'failure' that involves your chosen material/s, can be due to:

- some defect within the material itself;
- faults in its installation method;
- failure of other elements of its supporting structure;
- a cataclysmic natural event such as floods, fire, a seismic event or cyclone; or
- any other cause, e.g. inadequate waterproofing measures.

However, the failure must involve the (chosen) material itself in the ramifications of the failure, i.e. where the old curtain walling failed and the 'glass' (your material) fell to the ground below.

An example of a 'success' of your chosen material could be (hypothetically) that the polycarbonate (glazing substitute) installed in a building that collapsed through structural inadequacy, survived the collapse intact.

Nevertheless, your examples must be REAL examples, as proven in relevant references to/from the literature (including newspapers and the web) or even your own photographs (but not too many photos please as these may make the submission too large for uploading into the e-course).

Options

You may choose to discuss/present your examples of successes and failures in one of various ways;

- according to 'material' with your response having two sections, each incorporating a success and a failure of the relevant material, or;
- separated according to successes (and according to failures), with those two sections each incorporating the examples of the two different materials you chose, or;
- separated according to the CAUSES of the failures or successes, e.g. structural design or material failures (the results of which involve 'your' materials), cataclysmic natural events, or poor workmanship, etc.

In fact, you may present this assignment in whatever is your chosen way, making sure that the above discussions are close to the following required length.

(up to 2 pages of text plus illustrations)

General advice

Your response for Q1 may incorporate a series of 'dot points' or even a table if you wish. Nevertheless your submission must have a relevant introduction and conclusion (even a sentence in each case, may suffice).

Q2 Plastics or membranes for exterior surface cladding

Overview

Translucent polyethylene roof membrane/sheeting was used as a recyclable exterior cladding for a temporary 'dining room' / restaurant erected on the (near-future - at that time) Olympic site in London, ie; Studio East Dining at Stratford, London by Carmody Groarke (Architects).

Undertake web searches for information about that temporary building and the actual cladding material used and discuss its relevant details.

Then discuss the use of that 'fabric' or a similar membrane/sheeting or a similar product that may be in popular demand for (or at least occasionally seen in publications) selective use on the exteriors of buildings.

(up to 1 page of text plus illustrations)

Assessment Due Date

Week 5 Friday (15 Dec 2017) 11:45 pm AEST

Return Date to Students

Week 7 Friday (5 Jan 2018)

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

Q1 Glass Case Study

Refer to your recommended readings from Topic 6 and find more information from your own research endeavours about glass properties and its application within buildings.

In the past the only fully glazed structures tended to be the glasshouses / conservatories built to control conditions in which plants were (and still are) grown. Then, in the mid-nineteenth century, Paxton designed the Crystal Palace as an exhibition centre. This was during the period in which the engineers were beginning to design and build 'widely spanning' iron and glass structures associated with major railway stations.

This assignment however, has a much smaller focus. You are required to investigate a significant (but small) example of a glass structure, as follows.

In 1987 the American architect, I M Pei, designed the glass 'pyramid' that is part of the Louvre, Paris. More recently, a relatively small 'glass box' structure for the new 'Apple Store' in 5th Avenue, New York, had been constructed in approx. 2008. In both cases, these buildings play an important (albeit small) role in a much larger complex that is below ground. Similarly, both structures

are located in a busy urban street or plaza.

Select one of the above two examples or an equally significant international example (well known or visible on the web) that serves a similar purpose in a similarly busy urban location. Your structure of choice must not be directly attached to an above-ground building and must have below ground facilities that are important to its function.

Find as much information (properly referenced) as you can about its basic 'purpose', also details of the structure and its glazing, including a photograph of the overall glass building. A drawing or photograph of its glazing system (or supporting structure) would be an advantage.

If there is little information about structural details and/or the type and properties of the glazing actually used, I need

you to use your personal judgment which must be supported by relevant academic literature, trade journals, and/or reputable architectural or product websites. In such a case, make sure that you state this fact clearly within your text. In summary; WHY is it there? (purpose of the little structure itself), of WHAT does it consist? (materials), and HOW does it function? (properties of the glass).

(2 pages plus illustration/s)

2) Clay Brick Case Study

Focus to be on polychromatic and/or sculpted (or sculptural) brick use

Refer to your recommended readings from Topic 7 and find more information from your own research about brick properties and their application within buildings.

Many beautiful examples of polychromatic and sculpted brickwork can be seen in older Aussie buildings (some of which are on the Heritage register, some not). With the current shortage of skilled bricklayers within Australia, greatly reduced numbers of brick buildings are being constructed here. Nevertheless some very interesting examples of decorative brickwork have recently been published (and given awards) both here and overseas.

For this case study, you have a choice of focus. **You may either focus on:**

1. **historical Australian Buildings (option 1) OR on**
2. **contemporary examples either in Australia or overseas (option 2).**

Either option must be examples of the use of polychromatic and/or sculptured brick. For either option your research may be through personal observation or from the literature (or the web).

Option 1 - historical example/s:

You may approach this option to suit your own preferences or to suit the availability of good examples in your own area. For example, Tasmania has (or certainly had) some excellent examples of polychromatic brick patterning in both commercial and residential buildings constructed in the early part of the twentieth century. A number of these included sculptural effects from the placement of the bricks, and occasionally specially shaped (sculpted) bricks as well. If you live in such an area you could do a personal study of up to three local examples (from the footpath, obviously). If you prefer you can do a more detailed study of just one building. The above examples of approaches you may take also apply to a study from the literature.

Option 2 - modern examples:

As for Option 1, you may follow your own leanings. Similarly, you may do a study of two or more examples of contemporary use of polychromatic or sculpted (or sculptural) brick use. Otherwise, if you have access to a good example locally or (to a great deal of information about one such building) in the literature, you may focus on one building only. To help you in finding contemporary examples, the following three examples have been included in product or architectural publications in the last decade:

- the Nigel Peck Centre at Melbourne Grammar School by John Wardle Architects using bricks from Daniel Robertson (bricks)
- the Mornington Centre (Melbourne) by architectural firm Lyons using specially crafted bricks from Austral Bricks.
- the brick screen wall from the Office for South Asian Human Rights Documentation, New Delhi, India

For either option:

You will need at least one photo of each building or its detail that you are discussing. The main limitation is the 'size' of your document if it contains too many photos.

You will need to discuss:

- the source (or potential source) of the bricks,
- why and how the bricks are different colours (in general if no project-specific information is available),
- the style of the architecture (essential if relevant to the brick patterning) and,
- include at least one drawn detail 'section' through a decorative brick feature .

Assessment Due Date

Week 8 Friday (12 Jan 2018) 11:45 pm AEST

Return Date to Students

Week 10 Friday (26 Jan 2018)

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 which relates to unit learning outcomes 1, 2 and 3 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 Tuesday (30 Jan 2018) 11:45 pm AEST

Return Date to Students

Week 12 Monday (5 Feb 2018)

The feedback is returned automatically by the system

Weighting

10%

Assessment Criteria

Successful completion of the online quiz from a single attempt
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

Q1 Case Study of complex glass or brickwork in a significant building

GENERAL OVERVIEW:

You will need to choose a significant building (or several smaller buildings) for which you can obtain sufficient information to complete this Case Study. In the interests of your eventual application for an 'open' license, please choose an international example (or outstanding Australian building) that will demonstrate some breadth in your understanding of relevant up-to-date materials, their properties and application in significant buildings. Your submission's introduction will need to provide the **reasons** your choice is considered significant and mention of your main sources of information.

Those reasons may include (but not be limited to):

- Aesthetics
- environmental attributes, eg; recycled glass
- forming an important part of a significant environmental strategy (eg; the thermally controlling glazing for a large atrium - or a series of atria - in a skyscraper)
- or even, (simply) that it forms a highly visible part of a spectacular building

Please note:

When sufficient information is not available about the specific building's details you may discuss technical and/or other details of its use of glass in general terms. An example of this may be where glass is used as the cladding of a building in a hot climate, for example, when you may use technical information about its implied or proven thermal resistance (and/or structural strength/adequacy) in accordance with data from reliable publications. Naturally any thermal performance discussed must relate to the building's ACTUAL location eg; London, Tokyo, Vancouver.

Some examples of very significant buildings using glass include:

- the Gucci Ginza building (2004-2006) in Tokyo, Japan; the facade of which uses two different types of glass to create a special effect,
- Shangri-La Tower in Vancouver, BC, Canada by James Cheng Architects, using Guardian brand advanced architectural glass,
- 1099 New York Avenue, Washington, DC, USA, in which the glazing on the facades is 'shingled',
- the Swiss Re building, 30 St Mary Axe, London by Norman Foster, which is fondly known as the 'gherkin',
- the spherical, glass clad City Hall in London,
- Salzburg Airport's Hangar 7 which uses 'fire-resistant' glass which, is I believe, a form of borosilicate 'f-r' glass (possibly by SCHOTT JENAer Glas GmbH)
- the upgraded Reichstag in Berlin, with particular note of its (incredible) dome, by Foster and Partners

An excellent example of stunningly innovative brick use is the recent Sydney building by famous American Architect; Frank Gehry. This is the Dr Chau Chak Wing Building at the UTS Campus in Sydney.

(500-600 words plus illustration/s)

Q2 Successes and failures of blockwork retaining walls' in basements

Refer to your recommended readings from Topic 9 and find more information from your own research endeavours about 'concrete blocks' (and alternatives) relevant to this course and their application for basement retaining walls within buildings.

Background...

Even though it should be well known that sub-surface seasonal watercourses exist (potentially) within soil and rocks below ground surface, it often comes as a serious shock when the occupants of a new building find water has penetrated their basement rooms or garage after three or more years when all has previously been dry. These seasonal watercourses do not require a distinct cavity in which to flow, it is simply that the excessive rainwater that has penetrated the surface soil follows any and all porous routes it can find through the deep soil and fragmented rocks. There are a number of practical waterproofing strategies and products of which I am aware, plus several 'design strategies' (allied with appropriate waterproofing); any of which ought to safeguard against such occurrences. However, keep in mind that any waterproofing system (especially when applied to a wall that is totally underground for its full height, [say] near the middle of the floor level above it), needs to be 'perfect' because one tiny join un-taped or any applied coating missed off; will, in the above circumstances, lead to increasingly worse ingress of water.

Submission requirements...

If you are aware of (or can find information about) any significant failures relevant to the above type of scenario, include a description of its cause and effects in your discussion. WARNING: If that is a real-life scenario (unpublished), please ensure that names and/or locations that might identify any person or the 'project' itself are NOT included. If it has been published, then ensure that you include referencing.

Find two different 'basement retaining wall' materials relevant to Topic 9 then describe full details of their construction as the 'block retaining walls' themselves.

Then find two different waterproofing methods to suit the given scenario (of a fully underground structural retaining wall located around the midpoint of the entire floor above, thus inaccessible from outside). Describe the required materials and their application. Include a 1:20 annotated detail section for each method/system.

Find one 'design strategy' that is intended (with waterproofing) to greatly reduce the chances of belowground water ingress to basement habitable rooms as described above. Describe the design strategy, the required materials and their application. Include a 1:20 annotated detail section.

(500-600 words plus illustration/s)

Q3 Removal of hazardous materials

As mentioned in Topic 5 in the Study Guide, the dangers of 'lead' (which is a neurotoxin) in the old types of paint are (or should be) very well known. Nevertheless, given the number of sturdy old buildings that remain in use, and the importance of recycling durable materials that remain in good condition, you could still be faced with the need to

remove old paint without knowing whether or not it contains lead.

Another product used frequently in the past is asbestos, whether that be loose asbestos fibres used in bulk for wall or ceiling insulation, or is included the asbestos cement sheeting for walls or corrugated roofing used in the past.

Unfortunately, it has recently been discovered that products are currently being imported from overseas countries that once again include asbestos in their manufacture.

For this assignment question investigate either (or both) of the above-mentioned hazardous materials. Check out and discuss briefly what they are and what risk they pose to human health.

Investigate current regulations and important advice regarding their removal (or not) from any building in which they are at this time and discuss appropriate actions.

Re paint:

Find an environmentally sensitive type of paint. Then briefly discuss why that one is considered to be 'relatively' safe for human health.

Re asbestos sheeting:

Find an appropriately non-hazardous option currently available. Then briefly discuss why that alternative option is considered to be 'relatively' safe for human health.

Assessment Due Date

Week 12 Friday (9 Feb 2018) 11:45 pm AEST

Return Date to Students

Exam Week Friday (16 Feb 2018)

two weeks after the due date

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