



# BLAR11043 *Building Systems and Services 1*

## Term 2 - 2022

Profile information current as at 13/12/2025 03:56 pm

All details in this unit profile for BLAR11043 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 introduce building ergonomics, including its effects on human performance and comfort; "universal access" design considerations; and engineering services associated with residential, low rise commercial and industrial building projects. Using industry regulations, standards and codes of practice, students will examine the principles of building services requirements, installation, operation and maintenance relating to: energy usage and needs; natural, extractive and air conditioning ventilation; natural and artificial lighting; security and communications, hydraulic service supply and disposal systems; fire protection; and acoustics.

#### 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 2 - 2022

- 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: 5%

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

Weighting: 20%

#### 3. **Written Assessment**

Weighting: 5%

#### 4. **Written Assessment**

Weighting: 30%

#### 5. **Written Assessment**

Weighting: 5%

#### 6. **Written Assessment**

Weighting: 35%

### 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

One student stated that the lectures needed to be more interactive.

##### Recommendation

It will be clarified that the tutorials provide the student with the opportunity for individual interaction after the lecture has been given.

#### Feedback from Student Feedback

##### Feedback

One student advised that the lecturer needs to change how the online class is delivered. Just reading the slides is not conducive to learning and quite boring

##### Recommendation

Although not a widely held issue, the lecturer has been made aware of the feedback.

## Unit Learning Outcomes

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

1. Describe building ergonomic factors affecting human performance and comfort
2. Identify “universal access” service amenities required for the physically disabled
3. Discuss energy usage and needs for residential, low rise commercial and industrial building projects
4. Explain natural, extractive and air conditioning ventilation, natural and artificial lighting, security and communications, and hydraulic service supply and disposal systems using industry regulations, standards and codes
5. Identify fire protection measures used in residential, low rise commercial and industrial building projects
6. Interpret building acoustic requirements using industry regulations, standards and codes

## Alignment of Learning Outcomes, Assessment and Graduate Attributes



### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Written Assessment - 5%	•					
2 - Written Assessment - 20%	•	•				
3 - Written Assessment - 5%		•	•			
4 - Written Assessment - 30%			•	•		
5 - Written Assessment - 5%				•	•	

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
6 - Written Assessment - 35%				•	•	•

## Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes					
	1	2	3	4	5	6
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 - 5%	•			•		•				
2 - Written Assessment - 20%	•			•		•				
3 - Written Assessment - 5%	•			•		•				
4 - Written Assessment - 30%	•	•		•		•				
5 - Written Assessment - 5%	•			•		•				
6 - Written Assessment - 35%	•	•		•		•				

## 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)
- Microphone and headset
- Microsoft Office
- Webcam
- Microsoft 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 - 11 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Ergonomics	Topic 1	

### Week 2 - 18 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Universal access design needs	Topic 2	<b>A1 Short written response 1</b> Due: Week 2 Friday (22 July 2022) 11:45 pm AEST

### Week 3 - 25 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Responses in stress situations	Topic 3	

### Week 4 - 01 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Energy usage and needs	Topic 4	<b>A2 Written Assessment 1</b> Due: Week 4 Friday (5 Aug 2022) 11:45 pm AEST

### Week 5 - 08 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Energy usage and needs	Topic 4	

### Vacation Week - 15 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Vacation Week

#### Week 6 - 22 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Building ventilation and internal climate control	Topic 5	<b>A3 Short written response 2</b> Due: Week 6 Friday (26 Aug 2022) 11:45 pm AEST

#### Week 7 - 29 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Building ventilation and internal climate control	Topic 5	

#### Week 8 - 05 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Lighting and electrical services	Topic 6	<b>A4 Written Assessment 2</b> Due: Week 8 Friday (9 Sept 2022) 11:45 pm AEST

#### Week 9 - 12 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Lighting and electrical services	Topic 6	

#### Week 10 - 19 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Water supply and hydraulic services	Topic 7	<b>A5 Short written response 3</b> Due: Week 10 Friday (23 Sept 2022) 11:45 pm AEST

#### Week 11 - 26 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Fire protection and services	Topic 8	

#### Week 12 - 03 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
Acoustic impacts of building services	Topic 9	

#### Review/Exam Week - 10 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
		<b>A6 Written Assessment 3</b> Due: Review/Exam Week Friday (14 Oct 2022) 11:45 pm AEST

#### Exam Week - 17 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
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## Assessment Tasks

### 1 A1 Short written response 1

#### Assessment Type

Written Assessment

#### Task Description

This assessment relates to learning outcomes 1.

This assessment has one short answer question that has to be completed.

Requires students to do research on a topical subject.

#### Assessment Due Date

Week 2 Friday (22 July 2022) 11:45 pm AEST

Via Turnitin

**Return Date to Students**

4 weeks prior to term Friday (17 June 2022)

Within two weeks of submission.

**Weighting**

5%

**Minimum mark or grade**

Must complete 50% or more AND achieve 50% or more in the "Short written response" assignments to pass this unit.

**Assessment Criteria**

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

Please refer to the Moodle site for specific assessment submission criteria.

**Learning Outcomes Assessed**

- Describe building ergonomic factors affecting human performance and comfort

**Graduate Attributes**

- Communication
- Information Literacy
- Information Technology Competence

## 2 A2 Written Assessment 1

**Assessment Type**

Written Assessment

**Task Description**

This assessment relates to learning outcomes 1 and 2.

This assessment has three questions that have to be completed.

Q1 requires students to apply learning from Topic 1.

Q2 requires students to apply learning from Topic 2.

Q3 requires students to apply learning from Topic 3.

**Assessment Due Date**

Week 4 Friday (5 Aug 2022) 11:45 pm AEST

Via Turnitin

**Return Date to Students**

Week 6 Friday (26 Aug 2022)

Within two weeks of submission.

**Weighting**

20%

**Assessment Criteria**

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.

**Referencing Style**

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

**Submission**

Online

**Submission Instructions**

Please refer to the Moodle site for specific assessment submission criteria.

**Learning Outcomes Assessed**

- Describe building ergonomic factors affecting human performance and comfort
- Identify "universal access" service amenities required for the physically disabled

**Graduate Attributes**

- Communication
- Information Literacy
- Information Technology Competence

### 3 A3 Short written response 2

**Assessment Type**

Written Assessment

**Task Description**

This assessment relates to learning outcomes 2 and 3.

This assessment has one question that has to be completed.

Requires students to do research on a topical subject.

**Assessment Due Date**

Week 6 Friday (26 Aug 2022) 11:45 pm AEST

Via Turnitin

**Return Date to Students**

Week 8 Friday (9 Sept 2022)

Within two weeks of submission.

**Weighting**

5%

**Minimum mark or grade**

Must complete 50% or more AND achieve 50% or more in the "Short written response" assignments to pass this unit.

**Assessment Criteria**

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.



## Referencing Style

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

## Submission

Online

## Submission Instructions

Please refer to the Moodle site for specific assessment submission criteria.

## Learning Outcomes Assessed

- Identify “universal access” service amenities required for the physically disabled
- Discuss energy usage and needs for residential, low rise commercial and industrial building projects

## Graduate Attributes

- Communication
- Information Literacy
- Information Technology Competence

## 4 A4 Written Assessment 2

### Assessment Type

Written Assessment

### Task Description

This assessment relates to learning outcomes 3 and 4.

This assessment has four questions that have to be completed.

Q1 requires students to apply learning from Topic 4.

Q2 requires students to apply learning from Topic 4.

Q3 requires students to apply learning from Topic 5.

Q4 requires students to apply learning from Topic 5.

### Assessment Due Date

Week 8 Friday (9 Sept 2022) 11:45 pm AEST

Via Turnitin

### Return Date to Students

Week 10 Friday (23 Sept 2022)

Within two weeks of submission.

### Weighting

30%

### Assessment Criteria

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.

## Referencing Style

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

## Submission

Online

## Submission Instructions

Please refer to the Moodle site for specific assessment submission criteria.

## Learning Outcomes Assessed

- Discuss energy usage and needs for residential, low rise commercial and industrial building projects
- Explain natural, extractive and air conditioning ventilation, natural and artificial lighting, security and communications, and hydraulic service supply and disposal systems using industry regulations, standards and codes

#### **Graduate Attributes**

- Communication
- Problem Solving
- Information Literacy
- Information Technology Competence

## **5 A5 Short written response 3**

#### **Assessment Type**

Written Assessment

#### **Task Description**

This assessment relates to learning outcomes 4.

This assessment has one question that has to be completed.

Requires students to do research on a topical subject.

#### **Assessment Due Date**

Week 10 Friday (23 Sept 2022) 11:45 pm AEST

Via Turnitin

#### **Return Date to Students**

Week 12 Friday (7 Oct 2022)

Within two weeks of submission.

#### **Weighting**

5%

#### **Minimum mark or grade**

Must complete 50% or more AND achieve 50% or more in the "Short written response" assignments to pass this unit.

#### **Assessment Criteria**

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.

#### **Referencing Style**

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

#### **Submission**

Online

#### **Submission Instructions**

Please refer to the Moodle site for specific assessment submission criteria.

#### **Learning Outcomes Assessed**

- Explain natural, extractive and air conditioning ventilation, natural and artificial lighting, security and communications, and hydraulic service supply and disposal systems using industry regulations, standards and codes
- Identify fire protection measures used in residential, low rise commercial and industrial building projects

#### **Graduate Attributes**

- Communication

- Information Literacy
- Information Technology Competence

## 6 A6 Written Assessment 3

### Assessment Type

Written Assessment

### Task Description

This assessment relates to learning outcomes 4, 5 and 6.

This assessment has five questions that have to be completed.

Q1 requires students to apply learning from Topic 6.

Q2 requires students to apply learning from Topic 6.

Q3 requires students to apply learning from Topic 7.

Q4 requires students to apply learning from Topic 8.

Q5 requires students to apply learning from Topic 9.

### Assessment Due Date

Review/Exam Week Friday (14 Oct 2022) 11:45 pm AEST

Via Turnitin

### Return Date to Students

Exam Week Friday (21 Oct 2022)

Within two weeks of submission.

### Weighting

35%

### Minimum mark or grade

Must achieve a mark of 40% (14/35) or more for this assessment

### Assessment Criteria

The assessment will be assessed on the following criteria:

- Clarity and succinctness of expression.
- Adequate coverage of topics discussed.
- Use of supporting information where appropriate and associated references.
- Original thought.
- Overall presentation and the ability to communicate using correct spelling, grammar and punctuation.
- Where appropriate the use of graphs, illustrations and other diagrams that visually support the context of your submission.
- Demonstration of the core knowledge associated with this unit and appropriate application of this knowledge.

### Referencing Style

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

### Submission

Online

### Submission Instructions

Please refer to the Moodle site for submission instructions.

### Learning Outcomes Assessed

- Explain natural, extractive and air conditioning ventilation, natural and artificial lighting, security and communications, and hydraulic service supply and disposal systems using industry regulations, standards and codes
- Identify fire protection measures used in residential, low rise commercial and industrial building projects
- Interpret building acoustic requirements using industry regulations, standards and codes

### Graduate Attributes

- Communication
- Problem Solving
- Information Literacy
- Information Technology 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