School of Architecture and Built Environment

ARBE3101: Performance and Sustainability of the Built Environment

Singapore BCA, Callaghan and Online

Semester 1 - 2025

COURSE OUTLINE

OVERVIEW

Course Description

This course explores the modern and future built environment through the impact of construction and design decision-making at a global, national and local level. Elements of evaluation, rating, health of buildings and occupants historically and practically are investigated for sustainable and resilient buildings and communities. The philosophies, experiences and resources of our First Nations peoples and the United Nations Sustainable Development Goals provides the lens through which these issues are investigated.

Academic Progress Requirements

Nil

Requisites

Course Replacement:
You cannot enrol if you have successfully completed any of the following course(s):
ARBE4101

Contact Hours

Callaghan
Lectorial
Face to Face On Campus
2 hour(s) per week(s) for 7 week(s) starting Week 1
Runs in weeks 1-4,6,9,11

Online
Self-Directed Learning
Online
10 hour(s) per week(s) for 13 week(s) starting Week 1.

Students will work through the course materials at their own pace. There will also be opportunities for students to get individualised help from teaching staff. Contact hours are a guide based on total hours expected to be undertaken per 10-unit course.

Unit Weighting Workload

10
Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10-unit course.

CONTACTS

Course Coordinator

Singapore BCA, Callaghan and Online
Dr Irene Perez Lopez
Irene.Perezlopez@newcastle.edu.au
(02) 4921 6608
Consultation: Consultation: Please email to arrange an appointment.
Response time: Within 2 business days
Virtual consultations available via zoom by arrangement

Mr Nathan West
Nathan.West@newcastle.edu.au
(02) 4921 5204
Consultation: Consultation: Please email to arrange an appointment.
Response time: Within 2 business days
Virtual consultations available via zoom by arrangement

Teaching Staff

Other teaching staff will be advised on the course Canvas site.

School Office

School of Architecture and Built Environment
Architecture Building
Callaghan
archbe@newcastle.edu.au
+61 2 4921 5771

SYLLABUS

Course Content

1. Introduction to the United Nations Sustainable Development Goals.
2. 'Sustainability transitions' in the built environment and the role of the Sustainable Development Goals.
3. Indigenous perspectives on space, place, and sustainability.
4. Evaluation and rating systems for sustainable design and construction.
5. The principle of resilience in design and construction.
6. Acoustic principles and requirements for interior environments.
7. Daylight and artificial lighting principles for interior environments.
8. Wellness and Indoor Environment Quality in the built environment.
9. Place, Access, Equity, and Community in the built environment.
10. Concepts and principles of post occupancy evaluation.

Course Learning Outcomes

On successful completion of this course, students will be able to:

1. Discuss the history of colonial invasions and their ongoing impacts on First Nations peoples, cultures and resources and how a global framework for sustainable development can respectfully engage with First Nations peoples and cultures

2. Identify the relationship between a global framework for sustainable development and improving the built environment in Australia

3. Apply decisions about the sustainable design and construction of buildings supported by an appropriate evaluation/rating tool

4. Recall knowledge of Indoor Environmental Quality for the planning of internal environments

5. Apply actions required for maintaining and monitoring building performance and sustainability

ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Online Quiz	Open from 10th March 2025 at 5pm until 21st March 2025 at 11:59pm	Individual	15%	1
2	Professional Report	17th April, 2025 by 11:59pm	Individual	35%	1, 2, 3
3	Online Quiz	Open from 5th May 2025 at 5 pm until 26th of May 2025 at 11:59 pm.	Individual	10%	4
4	Professional Task - Post Occupancy Evaluation	9th June 2025 by 11:59 pm	Individual	40%	2, 3, 4, 5

Late Submissions The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

Assessment 1 - Online Quiz

Assessment Type Quiz
Description
Weighting 15%
Due Date Open from 10th March 2025 at 5pm until 21st March 2025 at 11:59pm
Submission Method Online
Accessed via link in Assignment menu within Canvas. Follow instructions as appropriate
Assessment Criteria Online quizzes will assess students' understanding of key concepts covered in weekly learning materials. Quizzes are automatically graded in Canvas LMS. Detailed information about quiz structure, timing, and attempts will be provided on the Canvas LMS course site.
Return Method Not Returned
Feedback Provided No Feedback
Opportunity to Reattempt Students will be given the opportunity to reattempt this assessment.

Assessment 2 - Professional Report

Assessment Type Written Assignment
Purpose This assessment evaluates students' ability to identify and analyse environmental challenges in construction within the framework of the Sustainable Development Goals (SDGs). Students will develop and justify practical solutions and demonstrate their ability to communicate these effectively in a professionally structured report.
Description A professional report where students develop and justify solutions to environmental challenges in construction, applying the Sustainable Development Goals in a hypothetical project setting. Full assessment details, including the project brief, specific requirements, and rubric, are available in the "Assignments" tab on Canvas.
Weighting 35%
Length 2000 words +/- 10% (excl TOC, tables, references)
Due Date 17th April, 2025 by 11:59pm
Submission Method Online
Assessment Criteria Refer to rubric provided on Canvas.
Return Method Not Returned
Feedback Provided Online - Generally within 3 weeks of submission.
Opportunity to Reattempt Students will not be given the opportunity to reattempt this assessment.

Assessment 3 - Online Quiz

Assessment Type Quiz
Description

Weighting	10%
Length	20 questions in 30 minutes
Due Date	Open from 5th May 2025 at 5 pm until 26th of May 2025 at 11:59 pm.
Submission Method	Online Accessed via link in Assignment menu within Canvas. Follow instructions as appropriate
Assessment Criteria	Online quizzes will assess students' understanding of key concepts covered in weekly learning materials. Quizzes are automatically graded in Canvas LMS. Detailed information about quiz structure, timing, and attempts will be provided on the Canvas LMS course site.
Return Method	Not Returned
Feedback Provided	No Feedback
Opportunity to Reattempt	Students will not be given the opportunity to reattempt this assessment.

Assessment 4 – Professional Task: Post Occupancy Evaluation

Assessment Type	Professional Task
Purpose	To assess students' ability to design a context-specific POE methodology that integrates resilience principles, demonstrating critical thinking and professional decision-making skills.
Description	Students will develop a Post-Occupancy Evaluation (POE) methodology for the Speers Point Park Multi Arts Centre. Full assessment details, including the project brief, specific requirements, and rubric, are available in the "Assignments" tab on Canvas.
Weighting	40%
Length	2200 words +/- 10% (excl TOC, tables, references)
Due Date	9th June 2025 by 11:59 pm
Submission Method	Online
Assessment Criteria	Refer to rubric provided on Canvas.
Return Method	Not Returned
Feedback Provided	Online - Generally within 3 weeks of submission.
Opportunity to Reattempt	Students will not be given the opportunity to reattempt this assessment.

ADDITIONAL INFORMATION

Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

*Skills are those identified for the purposes of assessment task(s).

Communication Communication methods used in this course include:

Methods

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.

Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

Learning Analytics

The University uses an evidence-based approach to enhancing student learning and delivering support. Our careful analysis of data through learning analytics informs decision making processes related to student learning, academic outcomes, and support services. Learning analytics may be used to identify targeted individual opportunities for additional support services or interventions.

Interviews on Assessment Items

An Interview may be conducted on any assessment item in this course, in accordance with the Interview on Assessment Items Procedure. The purpose of the interview is to verify the author of the material submitted in response to the assessment task and provide a quality assurance measure.

In the event the Course Coordinator is not satisfied that a student's oral responses are consistent with the work originally submitted, the matter will be referred to the Student Academic Conduct Officer, who will take appropriate action under the Student Conduct Rule.

Academic Integrity and Ethical Academic Conduct Policy

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations.

Please refer to the Academic Integrity and Ethical Academic Conduct Policy

Adverse Circumstances

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s).

Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure.

Use of generative artificial intelligence in course assessments

It is critical that any work submitted for assessment is your own original work. Before using generative AI tools (such as ChatGPT, Perplexity, Microsoft Copilot, etc) in any assessable work you must ensure that such use is in line with the requirements for the course and expectations of your Course Coordinator

Misuse of AI tools may be considered a breach of the University's Student Conduct Rule and could result in disciplinary action.

Artificial Intelligence detection software may be used to review any work you submit. If you have used AI in any way other than has been expressly permitted by your course coordinator, you may be engaging in academic misconduct and be subject to penalties.

For information, refer to:

- Generative AI Tools
- Academic Integrity

Important Policy Information

The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures that support a safe and respectful environment at the University

This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.

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