

ARBE3121: Evidence-based Research for the Built Environment

Online

Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description Students will examine philosophical, theoretical, ethical and methodological concepts and processes associated with evidence-based research activities in the built environment. Both quantitative and qualitative research methods will be learnt within a problem-oriented context.

Academic Progress Requirements Nil

Contact Hours

Online
Lectorial
Face to Face On Campus
2 hour(s) per week(s) for 12 week(s) starting Week 1
Distance learning students will receive equivalent instruction through online or other distance education strategies.

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

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.

COURSE OUTLINE

CONTACTS

Course Coordinator **Online**
A/Pr Graham Brewer
Graham.Brewer@newcastle.edu.au
(02) 4921 5794
Consultation:

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

School Office **School of Architecture and Built Environment**
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SYLLABUS

- Course Content**
- Introduction to Research and the Research Process
 - Research themes and deciding on a research topic
 - Literature reviews for research background, identifying research gaps and methodology background
 - Research aim, question, objectives and scope
 - Literature and information searching
 - Referencing
 - Research reading and management
 - Methodologies, methods and Research Design
 - Data collection, analysis and management
 - Logical Argumentation, writing with a clear narrative
 - Presenting results, discussion and conclusion
 - Research Ethics
 - Scholarly, evidence-based writing

- Course Learning Outcomes**
- On successful completion of this course, students will be able to:**
1. Conduct a background literature search for a research topic; describe and discuss the literature and define research problem that relates to a real world issue using evidence-based language.
 2. State a research question based on academic evidence of a real world problem in the built environment.
 3. Develop a context specific, ethical research strategy for evidence-based investigations in the built environment.
 4. Reference correctly in a given referencing style.

Course Materials

SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due
1	26 Feb	Course Introduction. Course objectives, conduct and expectations,	F2F Workshop	

		assessment timetable, overarching principles and concepts, incl. research topics.		
2	4 Mar	Academic Integrity. What is it, how does it apply to research activities and outputs, how does it influence what a researcher can do, and how do they demonstrate good academic integrity? Referencing skills for the course.	Self-directed learning	
3	11 Mar	Research methodology. What is it, how does it relate to research problems and the search for an answer to a research question?	Self-directed learning	Assessment 1: online quiz. Completed by 11.59 PM on Friday, 15/03/2024
4	18 Mar	Introduction to research proposals. Purpose, structure, best practice. Overview of assessments 3 & 4. Research methods. Introduction and overview of qualitative and quantitative methods. Matching methods to research questions/problems.	F2F Workshop	
5	25 Mar	Qualitative research methods	Self-directed learning	Assessment 2: online quiz. Completed by 11.59 PM on Friday, 29/03/2024
6	1 Apr	Qualitative research methods	Self-directed learning	
7	8 Apr	Quantitative research methods	F2F Workshop	
Mid-Semester Recess				
Mid-Semester Recess				
8	29 Apr	Quantitative research methods	Self-directed learning	Assessment 3: Draft Proposal Completed by 11.59 PM on Wednesday, 01/05/2024
9	6 May	Mixed research methods	Self-directed learning	
10	13 May	Using a mind map to check your method fits with your overall research project	Self-directed learning	
11	20 May	Research Methodology in the Built Environment: Case Studies	F2F Workshop	
12	27 May	Proposal Writing Strategies	Self-directed learning	
13	3 Jun	Review of the final assessment requirements	Self-directed learning	Assessment 4: Final Proposal Completed by 11.59 PM on Wednesday, 05/06/2024
Examination Period				
Examination Period				

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 1	Open from course commencement until Friday, 15/03/2024 by 11:59 PM	Individual	20%	1, 3, 4
2	Online Quiz 2	Open from course commencement until Friday, 29/03/2024 by 11:59 PM	Individual	20%	1, 3, 4
3	Draft research proposal	Wednesday, 1 May 2024 by 11.59 PM	Individual	30%	1, 2, 3, 4
4	Final research proposal	Wednesday, 05/06/2024, by 11.59 PM.	Individual	30%	1, 2, 3, 4

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 1

Assessment Type	Quiz
Purpose	To demonstrate understanding of academic referencing, literature review types, and referencing conventions for the Bachelor of Construction Management (Building) degree program.
Description	This is a 20 question multiple choice quiz that must be completed within 30 minutes of commencement, by the due date.
Weighting	20%
Due Date	Open from course commencement until Friday, 15/03/2024 by 11:59 PM
Submission Method	Online
	Accessed via link in Assignment menu within Canvas. Follow instructions as appropriate.
Assessment Criteria	Automatically assessed.
Return Method	Not Returned
Feedback Provided	No Feedback - . Final score revealed upon completion of quiz.

Assessment 2 - Online Quiz 2

Assessment Type	Quiz
Purpose	To demonstrate understanding of research methodology and methods, their selection and application to answering research questions.
Description	This is a 20 question multiple choice quiz that must be completed within 30 minutes of commencement, by the due date.
Weighting	20%
Due Date	Open from course commencement until Friday, 29/03/2024 by 11:59 PM
Submission Method	Online
	Accessed via link in Assignment menu within Canvas. Follow instructions as appropriate.
Assessment Criteria	Automatically assessed.
Return Method	Not Returned
Feedback Provided	No Feedback - . Final score revealed upon completion of quiz.

Assessment 3 - Draft research proposal

Assessment Type	Written Assignment
Purpose	Draft a written research proposal

On completion of this assignment the student should be able to:

1. Critically analyse literature and synthesise literary arguments to identify and justify research gaps/problems

Description	<p>2. Construct research aim, research question (propositions and/or hypothesis as applicable) and research objectives</p> <p>3. Identify a preliminary research methodology and justify a selected method for inquiry</p> <p>The topic of the research is open to the student, however should be in the area of construction management.</p> <p>The research proposal should:</p> <ol style="list-style-type: none">describe the background to the planned research (based on academic or practical problem), significance and relevance to the professionidentify of a research gap, research aim/question and research objectivesdescribe a research methodology (at a conceptual level)contain at least 10 key references applicable to the topicbe written in a professional and scholarly writing style, fully referenced according to discipline's standards <p>The written component should only be presented in the template provided via Canvas for this assessment.</p> <p>Identifying key references and embedding them in the proposal is critical. All sections, including research context/background, research gap, significance and methodology need to be supported with credible evidence/references. It is important to identify and position key/authoritative practitioners/researchers in the chosen research topic area in the proposal.</p>
Weighting	30%
Length	Minimum 1000 words (maximum 2500 words)
Due Date	Wednesday, 1 May 2024 by 11.59 PM
Submission Method	<p>Online</p> <p>The submission will be in the form of an electronic file(s) submitted to Canvas. The research proposal should be developed in the template provided.</p> <p>It is the student's responsibility to ensure that:</p> <ol style="list-style-type: none">the file(s) submitted is the correct one,the file(s) is not corrupted and is completethe file is completely uploaded without failure <p>Students, upon uploading the assessment, should log in and download/view their assessment to ensure it is to their satisfaction, obtaining proof of submission as the do.</p>
Assessment Criteria	<p>No extension of time will be given if you have not uploaded the assessment in time and late penalties apply.</p> <p>Research problem Identification 30%</p> <p>Background to the research and identification of a research gap</p> <p>Relevance to profession</p> <p>Significance of research</p> <p>Research problem conceptualisation 30%</p> <p>Research conceptualisation</p> <p>Research question</p> <p>Research Aim</p> <p>Research Objectives</p> <p>Explanation of relationship to body of knowledge and its impact</p> <p>Preliminary Research methodology 20%</p> <p>Selection of methods</p> <p>Justification of methods</p> <p>Explanation of methods</p> <p>Replicability</p>

Application of professional and ethical standards 10%
Ethical statement
Citations and Referencing

Research Plan 10%
Activities/durations
Sequencing
Online

Return Method

Feedback Provided

Online - 3 weeks from submission.. Rubric + Written feedback (best points, worst points, overall impression/points to be addressed in final submission)

Assessment 4 - Final research proposal

Assessment Type

Written Assignment

Purpose

Generate a completed written research proposal

On completion of this assignment the student should be able to:

1. Critically analyse literature and synthesise literary arguments to identify and justify research gaps/problems
2. Construct research aim, research question (propositions and/or hypothesis as applicable) and research objectives
3. Identify a preliminary research methodology and justify a selected method for inquiry

Description

The topic of the research is open to the student, however should be in the area of construction management.

The research proposal should:

- a. describe the background to the planned research (based on academic or practical problem), significance and relevance to the profession
- b. identify of a research gap, research aim/question and research objectives
- c. describe a research methodology (at a conceptual level)
- d. contain at least 10 key references applicable to the topic
- e. be written in a professional and scholarly writing style, fully referenced according to discipline's standards

The written component should be presented in a format that best suits the nature of the research problem being presented (it should NOT be presented using the template from assessment 3)

Identifying key references and embedding them in the proposal is critical. All sections, including research context/background, research gap, significance and methodology need to be supported with credible evidence/references. It is critical to identify and position key/authoritative practitioners/researchers in the chosen research topic area in the proposal.

Students should evaluate if their research project requires Human Research Ethics clearance to collect necessary data complete the research, clearly identifying why it is necessary.

Weighting

30%

Length

2500 words +/- 10%

Due Date

Wednesday, 05/06/2024, by 11.59 PM.

Submission Method

Online

The submission will be in the form of an electronic file(s) submitted to Canvas. The written component should be presented in a format (Word document) that best suits the nature of the research problem being presented. NB It must NOT be presented using the template from assessment 3.

It is the student's responsibility to ensure that:

1. the file(s) submitted is the correct one,
2. the file(s) is not corrupted and is complete
3. the file is completely uploaded without failure

Students, upon uploading the assessment, should log in and download/view their assessment to ensure it is to their satisfaction, obtaining proof of submission as the do.

Assessment Criteria

No extension of time will be given if you have not uploaded the assessment in time and late penalties apply.

Articulation of motivation for research 10%

Trigger

Established research gap

Scale of research gap

Articulation of research intent 10%

Research Question

Research Aim/Hypothesis/ Propositions

Research Objectives

Literature Review 35%

Sourcing of relevant literature

Analysis of literature

Synthesis of student's command of domain

Sourcing and justification of data for study 10%

Sourcing of relevant literature/statistical data

Relevance

Completeness

Articulation of research methodology and execution of research methods 25%

Selection of methods

Justification of methods

Explanation of methods

Explanation of relationship to body of knowledge and its impact

Replicability

Application of professional and ethical standards 10%

Ethical statement

Citations and Referencing

Not Returned

Online - 3 weeks from submission.. Rubric (no written feedback).

Return Method

Feedback Provided

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 Methods

Communication methods used in this course include:

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.

Oral Interviews (Vivas)

As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the [Oral Examination \(viva\) Procedure](#). In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the [Student Conduct Rule](#).

Academic Misconduct

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. For the Student Academic Integrity Policy, refer to <https://policies.newcastle.edu.au/document/view-current.php?id=35>.

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 available at:

<https://policies.newcastle.edu.au/document/view-current.php?id=236>

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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