

GEOS4001: Research Methodologies

Callaghan

Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description	Research Methodologies forms part of the Honours Program in Earth Science. This course covers advanced approaches to research methodology, with relevance to Honours projects undertaken by students at the 4000 level. Students enrolled in this course will explore contemporary perspectives in Earth Science research and focus specifically on; developing research skills; formulating research proposals; framing research questions; reviewing existing research; and choosing appropriate methodologies for different types of study. Methodologies are examined in the context of their application to their project (and associated research grouping), such as Geoscience, Spatial Science and Earth Science.
Academic Progress Requirements	Nil
Contact Hours	Callaghan Workshop Face to Face On Campus 2 hour(s) per term
Unit Weighting Workload	20 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	Callaghan Dr Michael Kinsela Michael.Kinsela@newcastle.edu.au (02) 4921 7466 Consultation: By appointment
Teaching Staff	Other teaching staff will be advised on the course Canvas site.
School Office	School of Environmental and Life Sciences Room C228 Chemistry Building Callaghan Science-SELS@newcastle.edu.au +61 2 4921 5080 9am-5pm (Mon-Fri)

SYLLABUS

Course Content	<ul style="list-style-type: none">Identify literature relevant to field of study, analyse key themes, evaluate arguments/evidence within literature, provide a rationale for the inclusion of research materials, identify limitations, formulate research questions, and identify appropriate methodology.Advanced capacity to clearly communicate research findings through a presentation and/or oral examination.
Course Learning Outcomes	<p>On successful completion of this course, students will be able to:</p> <ol style="list-style-type: none">Apply discipline specific theoretical and practical research skills.Demonstrate skills in information searching, selection, retrieval, and interpretation.Identify appropriate methods of quantitative and/or qualitative data collection as relevant to the research project undertaken.Design and develop a structured research plan using cognitive skills and critical thinking.Interpret, summarise, and synthesise the literature of academic and professional literature.

ASSESSMENTS

This course has 2 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Literature Review	Friday 5pm Week 7	Individual	70%	1, 2, 3, 4, 5
2	Presentation	Week 5 - location and time to be announced on Canvas	Individual	30%	1, 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 - Literature Review

Assessment Type	Literature Review
Purpose	Each student will prepare a written literature review, knowledge gap identification and research proposal for their individual research topic. This document should demonstrate the student has developed the required knowledge of their topic and has formulated an achievable project plan in consultation with their academic supervisor.
Description	The written literature review, knowledge gap identification and research proposal should be no more than 25 1.5 spaced pages excluding references. This document should also incorporate any feedback from the oral presentation and a project timeline. Thought should also be given to structuring the literature review such that it can easily adapted or updated to form the literature review which typically needs to be included in the introductory sections of the final thesis.
Weighting	17.5% of final Honours grade
Due Date	Friday 5pm Week 7
Submission Method	Online Via Canvas Turnitin
Assessment Criteria	See Canvas for assessment criteria
Return Method	Online
Feedback Provided	Online - within 4 weeks of submission.
Opportunity to Reattempt	Students WILL NOT be given the opportunity to reattempt this assessment.

Assessment 2 - Presentation

Assessment Type	Presentation
Purpose	Students will prepare and deliver an oral presentation outlining their proposal research topic. It is a critical piece of work which helps students plan their project and also provides academic staff and research students who are not involved in the project with an opportunity to critically evaluate your proposal and provide suggestions that will assist in fine-tuning your proposed work.
Description	The oral presentation should introduce the topic, summarise the relevant work that has already done, identify key knowledge gaps that exist, outline which of these knowledge gaps you will address and give a summary of the data and methods you will use to achieve your research aims (where possible, information on expected outcomes and how they will advance knowledge in the field should also be communicated).
Weighting	7.5% of final Honours grade
Due Date	Week 5 - location and time to be announced on Canvas
Submission Method	In Class Presentations will be in person at a scheduled time TBC
Assessment Criteria	See Canvas for assessment criteria
Return Method	Online
Feedback Provided	Online - within 1 week of presentation.
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 Methods

Communication methods used in this course include:

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

The course coordinator will communicate via the canvas site, however you will also have regular face to face meetings with your academic supervisor

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;

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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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