

CIVL4640: Project S1

Singapore BCA and Callaghan
Semester 1 - 2024



THE UNIVERSITY OF
NEWCASTLE
AUSTRALIA

OVERVIEW

Course Description Independent research study in the form of a literature review, an experimental or theoretical investigation, an engineering design problem etc. Results are communicated in the form of a seminar, poster and final report.

Academic Progress Requirements Nil

Requisites This course is only available to students active in the programs:

[12282] Bachelor Engineering(Hons)(Civil)/Bachelor Engineering(Hons)(Surveying)
[12288] B Engineering (Honours) (Civil)
[12289] Bachelor of Engineering (Honours)(Civil)/Bachelor of Business
[12290] Bachelor of Eng (Hons)(Civil)/Bachelor of Eng (Hons)(Environmental)
[12298] Bachelor of Engineering (Honours)(Environmental)
[40054] Bachelor of Civil Engineering (Honours)
[40057] Bachelor of Environmental Engineering (Honours)
[40082] Bachelor of Civil Engineering (Honours)/Bachelor of Business
[40083] Bachelor of Civil Eng (Honours)/ Bachelor of Environmental Eng (Honours)
[40084] Bachelor of Civil Engineering (Honours)/Bachelor of Mathematics
[40085] Bachelor of Civil Engineering (Honours)/Bachelor of Surveying (Honours)
[40090] Bachelor of Environmental Engineering (Honours)/Bachelor of Science
[40200] Bachelor of Environmental Engineering (Honours)/Bachelor of Science
[40353] Bachelor of Civil Eng (Honours)/ Bachelor of Environmental Eng (Honours)
[40231] Bachelor of Civil Engineering (Honours)
[40354] Bachelor of Civil Engineering (Honours)
[40356] Bachelor of Civil Engineering (Honours)/Bachelor of Business
[40357] Bachelor of Civil Engineering (Honours)/Bachelor of Mathematics
[40358] Bachelor of Civil Engineering (Honours)/Bachelor of Surveying (Honours)
[40361] Bachelor of Environmental Engineering (Honours)
[40362] Bachelor of Environmental Engineering (Honours)/Bachelor of Science

COURSE OUTLINE

Assumed Knowledge A student should have completed sufficient courses to be able to complete their program requirements in the year of enrolment.

Contact Hours

Singapore BCA

Individual Supervision

Face to Face On Campus

1 hour(s) per week(s) for 13 week(s) starting Week 1

With individual supervisors.

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 4 week(s) starting Week 1

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 1 week(s) starting Week 10

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 1 week(s) starting Week 12

Callaghan

Individual Supervision

Face to Face On Campus

1 hour(s) per week(s) for 13 week(s) starting Week 1

With individual supervisors.

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 1 week(s) starting Week 12

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 1 week(s) starting Week 10

Lecture

Face to Face On Campus

2 hour(s) per week(s) for 4 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.

CONTACTS

Course Coordinator **Callaghan**
Prof Anna Giacomini
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Consultation: via email

Singapore BCA
Dr Adnan Anwar Malik
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Consultation: via email

Teaching Staff You will be allocated an individual Academic Supervisor for this course. Details of current allocations are posted on Canvas.

School Office **School of Engineering**
EAG02
EA Building
Callaghan
9.00am-1.00pm and 2.00pm-5.00pm (Monday to Friday)
School of Engineering (Callaghan)
SENG-ADMIN@newcastle.edu.au

SYLLABUS

Course Content A self-directed project under the supervision of a member of academic staff involving a poster, a seminar, and a written report of the project. The course content includes instructions in presentation skills, and use of library resources.

Course Learning Outcomes **On successful completion of this course, students will be able to:**

1. Use their initiative in an area of self-selected engineering interest.
2. Demonstrate initiative through the work performed.
3. Critically analyse the work performed previously by others.
4. Critically assess the achievements, limitations and further requirements of their own work.
5. Demonstrate an appreciation of the state-of-the-art in the selected area.
6. Demonstrate, through oral and written presentations, the ability to communicate the objectives and outcomes of the work.

Course Materials **Other Resources:**

- Course materials will be defined by your Academic Supervisor.

COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL of the following compulsory requirements:

Contact Hour Requirements:

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Course Assessment Requirements:

- Assessment 2 - Seminar: Pass requirement - Must pass this assessment item to pass the course.

Compulsory Placement and WHS Requirements:

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ASSESSMENTS

This course has 3 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Poster	During lecture time in Week 4	Individual	10%	1, 2, 6
2	Seminar*	09:00 AM, Friday of Week 11. You will be required to attend all seminars (within your presentation-stream) between 09:00AM and 02:00 PM.	Individual	10%	1, 2, 6
3	Final Written Report	Monday of Week 15.	Individual	80%	1, 2, 3, 4, 5, 6

* This assessment has a compulsory requirement.

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 - Poster

Assessment Type	Exhibition / Poster
Purpose	To present your work (to date).
Description	You will create, show, and discuss a poster of your work (to date). This is both a visual and oral presentation. Students should demonstrate understanding of their project topic in the wider content of the relevant research field, state expected research outcomes, research methodology, and propose a research plan.
Weighting	10%
Length	1 page (recommended size A1, minimum 650x1000mm)
Due Date	During lecture time in Week 4
Submission Method	Specific Location Two submissions are required: (1) electronic copy to Canvas/Turnitin, (2) hard copy at poster-presentation room TBA on Canvas.
Assessment Criteria	Average of three marks: presentation, content, discussion.
Return Method	Not Returned
Feedback Provided	In Person -. Feedback is provided by individual Academic Supervisor.

Assessment 2 - Seminar

Assessment Type	Presentation
Purpose	To give an oral presentation of your work completed to-date.
Description	You will create, show, and discuss a PowerPoint presentation of your work (as completed to

Weighting	10%
Compulsory Requirements	Pass requirement - Must pass this assessment item to pass the course.
Length	15 minutes (10 min presentation and 5 minutes Q&A)
Due Date	09:00 AM, Friday of Week 11. You will be required to attend all seminars (within your presentation-stream) between 09:00AM and 02:00 PM.
Submission Method	In Class Two submissions are required: (1) electronic copy to Canvas/Turnitin, (2) presentation at the seminar room TBA on Canvas. You are to present your PowerPoint presentation using the UON provided IT equipment.
Assessment Criteria	Amount of work, intellectual contribution, degree of difficulty, presentation, content, analysis, conclusions.
Return Method	Not Returned
Feedback Provided	In Person -. Feedback is provided by individual Academic Supervisor.
Opportunity to Reattempt	Students WILL be given the opportunity to reattempt this assessment.

Assessment 3 - Final Written Report

Assessment Type	Report
Purpose	To produce a formal Engineering Report of your (as-completed) work
Description	You will create a Formal Engineering Report of your work (as completed)
Weighting	80%
Length	As defined in the Assessment's Brief
Due Date	Monday of Week 15.
Submission Method	Online Submissions as electronic copy to Canvas/Turnitin.
Assessment Criteria	Amount of work, intellectual contribution, degree of difficulty, presentation, content, analysis and conclusions.
Return Method	Not Returned
Feedback Provided	In Person -. Feedback is provided by individual Academic Supervisor.

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.
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Attendance	<p>*Skills are those identified for the purposes of assessment task(s). Attendance/participation will be recorded in the following components:</p> <ul style="list-style-type: none"> - Individual Supervision (Method of recording: The class roll will be marked at the seminar session)
WH&S Requirements	<p>Students are to discuss any and all WHS matters with their Academic Supervisor. That said, please do not hesitate to contact the Course Coordinator if you ever have a WHS matter that remains unresolved.</p>
Communication Methods	<p>Communication methods used in this course include:</p> <ul style="list-style-type: none"> - 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. - Face to Face: Communication will be provided via face to face meetings or supervision. <p>There is an orientation lecture in Week 1 to discuss how the course will run.</p>
Course Evaluation	<p>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.</p>
Oral Interviews (Vivas)	<p>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.</p>
Academic Misconduct	<p>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 at 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.</p>
Adverse Circumstances	<p>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:</p> <ol style="list-style-type: none"> 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. <p>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</p>
Important Policy Information	<p>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.</p>

Graduate Profile Statements

This course builds students' capacity in the following University of Newcastle Bachelor of Engineering Graduate Profile Statements (based on 2011 Engineers Australia revised Stage 1 Competency Standards for Professional Engineers):

UON Att.	University of Newcastle Bachelor of Engineering Graduate Profile Statements/ Engineers Australia Stage 1 competency statements	Taught	Practised	Assessed	Skill Level (1-4)
	Professional Attributes	x	x	x	4
11	3.1. Ethical conduct and professional accountability	x	x	x	4
12	3.2. Effective oral and written communication in professional and lay domains.	x	x	x	4
13	3.3. Creative, innovative and pro-active demeanour.	x	x	x	4
14	3.4. Professional use and management of information.	x	x	x	4
15	3.5. Orderly management of self, and professional conduct.	x	x	x	4
16	3.6. Effective team membership and team leadership.	x	x	x	4
	Engineering Ability	x	x	x	4
7	2.1. Application of established engineering methods to complex engineering problem solving.	x	x	x	4
8	2.2. Fluent application of engineering techniques, tools and resources.	x	x	x	4
9	2.3. Application of systematic engineering synthesis and design processes.	x	x	x	4
10	2.4. Application of systematic approaches to the conduct and management of engineering projects.	x	x	x	4
	Knowledge Base	x	x	x	4
1	1.1. Comprehensive, theory-based understanding of the underpinning natural and physical sciences and the engineering fundamentals applicable to the engineering discipline.	x	x	x	4
2	1.2. Conceptual understanding of the mathematics, numerical analysis, statistics, and computer and information sciences which underpin the engineering discipline.	x	x	x	4
3	1.3. In-depth understanding of specialist bodies of knowledge within the engineering discipline.	x	x	x	4
4	1.4. Discernment of knowledge development and research directions within the engineering discipline.	x	x	x	4
5	1.5. Knowledge of contextual factors impacting the engineering discipline.	x	x	x	4
6	1.6. Understanding of the scope, principles, norms, accountabilities and bounds of contemporary engineering practice in the specific discipline.	x	x	x	4

This course outline was approved by the Head of School on the 30/01/2024. 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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