

CVEN4106 CONSTRUCTION PRACTICUM

COURSE DETAILS

Units of Credit	6	
Contact hours	5 hours per week	
Lecture	Monday, 18:00 – 21:00	Civil Engineering Room 701 (K-H20-701)
Seminar	Wednesday, 18:00 – 20:00	Civil Engineering Room 701 (K-H20-701)
Course Coordinator and Lecturer	Dr Shane Geha jke@eg.com.au Off campus office	

INFORMATION ABOUT THE COURSE

Pre-requisites: CVEN2101 and CVEN3101

HANDBOOK DESCRIPTION

This course involves students working on a hands-on infrastructure project. Projects will involve infrastructure such as buildings, bridges, water supply and drainage, and historical structures. Within a nominated project, students are expected to develop, design, estimate, plan, construct, and manage the processes. The emphasis in the course is on the students learning by doing and having a hands-on approach. Students take theory learned in other courses and apply it in practice. Students are expected to think for themselves, deal with situations that they have not come across before, and think in a practical and professional way. Each time the course is offered, it will be based on a different project so that students will need to solve new problems and address novel issues.

<https://www.handbook.unsw.edu.au/undergraduate/courses/2022/CVEN4106/>

SCHOOL CONTACT INFORMATION

[Engineering Student Support Services](#) – The Nucleus - enrolment, progression checks, clash requests, course issues or program-related queries

[Engineering Industrial Training](#) – Industrial training questions

[UNSW Study Abroad](#) – study abroad student enquiries (for inbound students)

[UNSW Exchange](#) – student exchange enquiries (for inbound students)

[UNSW Future Students](#) – potential student enquiries e.g. admissions, fees, programs, credit transfer

Phone

(+61 2) 9385 8500 – Nucleus Student Hub

(+61 2) 9385 7661 – Engineering Industrial Training

(+61 2) 9385 3179 – UNSW Study Abroad and UNSW Exchange (for inbound students)

OBJECTIVES

The objectives of the course are:

- Understanding the development Cycle of Projects
- Carry out Feasibility Studies for Projects
- Understanding the various approvals required for Projects in NSW
- Basic understanding of Law, Planning and Risk as they relate to Engineering Projects
- Understanding the Sensitivity Analyses for Projects
- Constructing Project Timelines
- Understand Legal and Project Processes for approval in NSW
- Understanding concept of land value in law and in practice
- Basic understanding of Architectural and Aesthetic concepts for Projects
- Understanding Project Viability and Factors contributing to it
- Understanding the Sales and Delivery process for Projects

In addition, the course aims to foster:

- Capacity for analytical thinking and for creative problem solving;
- Ability to engage independent and reflective learning;
- Develop the skills for collaborative and multi-disciplinary work by working effectively in small teams;
- Information literacy; and
- Skills for effective communication

These objective and course aims will be achieved using:

- Lectures and assigned readings;
- Workshops; and
- Assessment Tasks (which includes a Final Examination)

List of programme attributes:

- An in-depth engagement with the relevant disciplinary knowledge in its inter-disciplinary context
- Capacity for analytical and critical thinking and for creative problem solving
- Ability to engage independent and reflective learning
- Information literacy
- Skills for collaborative and multi-disciplinary work
- A respect for ethical practice and social responsibility
- Skills for effective communication

TEACHING STRATEGIES

The teaching strategies that will be used and their rationale.

Private Study	<ul style="list-style-type: none">• Review lecture material and textbook• Do set problems and assignments• Join Moodle discussions of problems• Reflect on class problems and assignments• Download materials from Moodle• Keep up with notices and find out marks via Moodle
Lectures	<ul style="list-style-type: none">• Find out what you must learn• See methods that are not in the textbook• Follow worked examples

	<ul style="list-style-type: none"> Hear announcements on course changes
Workshops	<ul style="list-style-type: none"> Be guided by Demonstrators Practice solving set problems Ask questions
Assessments	<ul style="list-style-type: none"> Demonstrate your knowledge and skills Demonstrate higher understanding and problem solving

EXPECTED LEARNING OUTCOMES

This course is designed to address the learning outcomes below and the corresponding Engineers Australia Stage 1 Competency Standards for Professional Engineers as shown. The full list of Stage 1 Competency Standards may be found in Appendix A.

After successfully completing this course, you should be able to:

Learning Outcome		EA Stage 1 Competencies
1.	<i>Develop an understanding of the basic concepts.</i>	PE1.1, PE1.2, PE1.6
2.	<i>Communicate effectively both written and verbally.</i>	PE3.1, PE3.2, PE3.5
3.	<i>By the conclusion of the course, the students will be able to understand the lifecycle of Project.</i>	PE2.2, PE2.3, PE3.3, PE3.5

For each hour of contact it is expected that you will put in at least 1.5 hours of private study.

COURSE PROGRAM

Term 3 2022

Date	Topic
12/09/2022 (Week 1)	Subject Overview and Conceptualisation Phase
19/09/2022 (Week 2)	Feasibility Phase and Selection of Project Options
26/09/2022 (Week 3)	Approval Phase
03/10/2022 (Week 4)	Public Holiday Labour Day, Monday 3rd October Project Procurement
10/10/2022 (Week 5)	Post-Project Phase
17/10/2022 (Week 6)	Non-Teaching week
24/10/2022 (Week 7)	Real Examples of Project
31/11/2022 (Week 8)	Engineering Meets Law
07/11/2022 (Week 9)	Oral Presentation during lecture

14/11/2022 (Week 10)	Course Review
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ASSESSMENT

1. Individual Assignment 1

This assignment will require students to compose a written report in the Harvard style, relating to the lecture and workshop content. The basis of this work is for students to illustrate their understanding of the knowledge learnt throughout the course, and demonstrate students' ability to coherently construct a report.

2. Oral presentation

This assignment requires each student in their allocated groups to present in front of a panel of distinguished guests in the Industry. The way you present accurate technical information is a significant part of this assignment. Each group must provide a one-page outline of their presentation to the panelists. The assignment will imbue students with the real-life experience of presenting to a Board, working in teams, and demonstrate students' public speaking skills.

3. Final Examination

The Final Examination will be externally conducted and scheduled by the UNSW Examinations Branch. Students will be informed via Moodle for the exact start time of this 2-hour examination. This examination is to assess students understanding of the course's significant technical content, based upon the presented lecture and workshop material given through the semester.

All assignments and reports are to be submitted using the 'Turnitin' submission tool. All assignments and reports are to be submitted by uploading onto the Moodle. No email copies will be accepted.

Note: Final exams in T3 2022 will be held online between 25th November - 8th December 2022 inclusive, and supplementary exams between 9th - 13th January 2023 inclusive. You are required to be available on these dates. Please do not to make any personal or travel arrangements during this period.

Details of each assessment component, the marks assigned to it, the criteria by which marks will be assigned, and the dates of submission are set out overleaf.

PENALTIES

UNSW has a standard late submission penalty of:

- 5% per day, for all assessments where a penalty applies, capped at five days (120 hours), after which a student cannot submit an assessment, and no permitted variation.

ASSESSMENT OVERVIEW

Item	Length	Weighting	Learning outcomes assessed	Assessment Criteria	Due date and submission requirements	Deadline for absolute fail	Marks returned
1. Individual Assessment 1	3000 words	20%	1, 2	The assignment is to be constructed in the Harvard format. The report will demonstrate a student's understanding of content presented in the lectures. It will be assessed based on content and format.	By 23:59pm on Friday 30 th September 2022	By 23:59pm on Thursday 6 th October 2022	By Friday 7 th October 2022
2. Oral presentation	15 minute presentation, 5 minute Q&A	30%	1, 2	In groups, students are to present to a Board using accurate, technical information/. Each student is expected to complete an evaluation form, which will be used to determine the overall individual mark. Whilst the 1-page outline is a requirement of the assessment, only the video presentation will be assessed.	Wednesday 9 th November 2022. To be presented in class.	Not applicable	Within 2 weeks.
3. Final examination	2 hours (plus 10 minutes reading)	50%	1, 3	The Final Examination will be conducted in the UNSW formal examination period covering the work of the entire course.	To be advised	Not applicable	Not applicable

RELEVANT RESOURCES

- There are no set textbooks for this course

DATES TO NOTE

Refer to MyUNSW for Important Dates available at:

<https://student.unsw.edu.au/dates>

PLAGIARISM

Beware! An assignment that includes plagiarised material will receive a 0% Fail, and students who plagiarise may fail the course. Students who plagiarise are also liable to disciplinary action, including exclusion from enrolment.

Plagiarism is the use of another person's work or ideas as if they were your own. When it is necessary or desirable to use other people's material you should adequately acknowledge whose words or ideas they are and where you found them (giving the complete reference details, including page number(s)). The Learning Centre provides further information on what constitutes Plagiarism at:

<https://student.unsw.edu.au/plagiarism>

ACADEMIC ADVICE

- Key Staff to Contact for Academic Advice (log in with your zID and password): <https://intranet.civeng.unsw.edu.au/key-staff-to-contact-during-your-studies-at-unsw>
- [Key UNSW Dates](#) - eg. Census Date, exam dates, last day to drop a course without academic/financial liability etc.
- CVEN Student Intranet (log in with your zID and password): <https://intranet.civeng.unsw.edu.au/student-intranet>
- Student Life at CVEN, including Student Societies: <https://www.unsw.edu.au/engineering/civil-and-environmental-engineering/student-life>
- Special Consideration: <https://student.unsw.edu.au/special-consideration>
- General and Program-Specific Questions: [The Nucleus: Student Hub](#)
- Book an Academic Advising session: <https://app.acuityscheduling.com/schedule.php?owner=19024765>

Disclaimer

This course outline sets out description of classes at the date the Course Outline is published. The nature of classes may change during the Term after the Course Outline is published. Moodle should be consulted for the up to date class descriptions. If there is any inconsistency in the description of activities between the University timetable and the Course Outline (as updated in Moodle), the description in the Course Outline/Moodle applies.

Appendix A: Engineers Australia (EA) Competencies

Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
PE1: Knowledge and Skill Base	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals
	PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing
	PE1.3 In-depth understanding of specialist bodies of knowledge
	PE1.4 Discernment of knowledge development and research directions
	PE1.5 Knowledge of engineering design practice
	PE1.6 Understanding of scope, principles, norms, accountabilities of sustainable engineering practice
PE2: Engineering Application Ability	PE2.1 Application of established engineering methods to complex problem solving
	PE2.2 Fluent application of engineering techniques, tools and resources
	PE2.3 Application of systematic engineering synthesis and design processes
	PE2.4 Application of systematic approaches to the conduct and management of engineering projects
PE3: Professional and Personal Attributes	PE3.1 Ethical conduct and professional accountability
	PE3.2 Effective oral and written communication (professional and lay domains)
	PE3.3 Creative, innovative and pro-active demeanour
	PE3.4 Professional use and management of information
	PE3.5 Orderly management of self, and professional conduct
	PE3.6 Effective team membership and team leadership