



School of Civil and Environmental Engineering

Term 3, 2020

CVEN2101

ENGINEERING CONSTRUCTION

COURSE DETAILS			
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Units of Credit	6		
Contact hours	6 hours per week		
Class	Tuesdays	15:00 – 17:00	Online
	Fridays	12:00 – 14:00	Online
	: R U N V K R S V	Fridays	14:00 - 16:00

INFORMATION ABOUT THE COURSE

This course extends the students' knowledge on basic construction processes, equipment and operations. It covers various topics in construction field including equipment, processes, operations and sustainability issues. The technologies and techniques employed for designing and planning in construction industry are introduced to students as well. Emphasis will be placed on quantifying various aspects of some construction processes and operations. At the end of the course, you will have a deep understanding about a variety of construction processes, engineering designs and construction equipment.

HANDBOOK DESCRIPTION

See link to virtual handbook:

<http://www.handbook.unsw.edu.au/undergraduate/courses/2020/CVEN2101.html>

OBJECTIVES

The objectives of the course are to:

- Provide an overview of the construction industry
- Introduce a variety of construction processes and equipment
- Investigate the state-of-the-art construction methods currently being employed in practice
- Calculate the production rate and costs of different construction equipment
- Introduce quantitative techniques for planning and managing construction activities and machinery
- Identify different methods and techniques to improve the sustainability in construction industry
- Work effectively in teams
- Skills for collaborative and multi-disciplinary work
- Skills for effective communication

TEACHING STRATEGIES

EXPECTED LEARNING OUTCOMES

construction project and prepare an Engineering Report on the selected construction processes and equipment. Detailed description of the assignment and instruction of Engineering Report preparation will be provided in the Moodle. Each group is required to submit only one copy of their assignment onto the Moodle.

ASSESSMENT OVERVIEW

Item	Length	Weighting	Learning outcomes assessed	Assessment Criteria	Due date	Deadline for absolute fail	Marks returned
1. Assignments							
Group Assignment	1 page	Part A 5 marks	1, 2, 3, 4	Assignment – Part A Completing the single page details	Before 17:00h on 09OCT2020 Uploaded onto the Moodle	Part A - By 17:00h on 14OCT2020	Within 2 days
	Nominally 3000 words	Part B 25 marks	1, 2, 3, 4	Group Assignment – Students work effectively in teams to conduct site inspection and prepare an Engineering Report on the specific construction equipment and processes.	Part B - Before 17:00h on 22NOV2020 Uploaded onto the Moodle	Part B - By 17:00h on 27NOV2020	Within 2 weeks
Individual Assignment	Nominally 3 pages						

Appendix A: Engineers Australia (EA) Competencies

Stage 1 Competencies for Professional Engineers

	Program Intended Learning Outcomes
	PE1.1 Comprehensive, theory-based understanding of underpinning fundamentals

PE1.2 Conceptual understanding of underpinning maths, analysis, statistics, computing

PE1: Knowledge
and Skill Base