CVEN2101 Engineering Construction

Semester 2, 2016

Never Stand Still | Faculty of Engineering | School of Civil and Environmental Engineering

COURSE DETAILS

Units of Credit	6		
Contact hours	5 hours per week		
Class	Tuesday,	10:00 – 12:00	Room: Central Lecture Block 7
	Thursday,	13:00 – 14:00	Room: Sir John Clancy Auditorium
Workshop	Thursday,	14:00 – 16:00	Check timetable for location
	Thursday,	16:00 – 18:00	
Course Coordinator and Lecturer	Dr Ali Amin email: ali.amin@unsw.edu.au office: Room 211 Civil Engineering Building (H20) phone: 9385 5766		

INFORMATION ABOUT THE COURSE

This course introduces students to a broad array of basic construction processes and systems. In this course students will look at how different structures are built. Construction methods often put major constraints on how structures are built, and hence consideration of the construction method is an important part of engineering design, even for those who are not involved with the construction itself. Particular emphasis will be placed on quantifying various aspects of some construction processes as well as identifying and controlling various risks associated with them.

HANDBOOK DESCRIPTION

See link to virtual handbook:

www.handbook.unsw.edu.au/undergraduate/courses/2016/CVEN2101.html

OBJECTIVES

The objectives of this course are to:

- Provide an overview of the construction industry
- Introduce a variety of construction processes and technologies
- Introduce quantitative tools for planning, estimating and managing construction processes
- Identify and assess risks in the construction industry
- Apply building codes and standards to the construction process for building projects
- Work effectively in teams
- Skills for collaborative and multi-disciplinary work
- A respect for ethical practice and social responsibility
- Skills for effective communication

TEACHING STRATEGIES

Private Study	• Review lecture material • Do set problems and assignments • Join and contribute to Moodle discussions • Reflect on class problems and assignments • Download materials from Moodle • Keep up with notices
Lectures	• Find out what you must learn • Follow worked examples • Hear announcements on course changes
Workshops	• Be guided by demonstrators • Practice solving set problems • Ask questions
Assessments	• Demonstrate your knowledge and skills • Demonstrate higher understanding and problem solving
Observations	• Pay particular attention to construction sites and look through the fence to see what is going on! Feel free to discuss any qualms with your lecturer or demonstrators!

EXPECTED LEARNING OUTCOMES

After completion of this course you will be able to:

- Describe and model several construction processes
- Optimise construction systems
- Identify potential risks and OHS related issues with projects
- Measure the efficiency of a construction operation and propose improvements
- Apply structural principles to construction methods

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

ASSESSMENT

As an introductory course to Engineering Construction, the assessment is set to match skills that have been acquired over the semester. The course will be assessed on your demonstrated knowledge on the topics being taught. The assessment structure will consist of one quiz; a group project and a final exam- the weighting of each component are as follow:

Quiz 1	20
Group Project	20
Final Exam	60

A mark of at least 40/100 in the final exam component is required before all other components are included in the final mark.

The formal exam scripts will not be returned. Students who perform poorly throughout the semester are recommended to discuss progress with the lecturer during the semester.

Note: The lecturer reserves the right to adjust the final scores by scaling if agreed to by the Head of School.

There are no exemptions to any part of this assessment. If you are repeating this course, you must complete all components this year.

All components of assessment are inherent requirements for this course.

COURSE PROGRAM

SEMESTER 2, 2016

Week	Start Date	Topic	Assessment
1	25 Jul	Introduction / Building Principles	
2	1 Aug	Building Materials & Building codes	
3	8 Aug	Earthmoving	
4	15 Aug	Foundations	
5	22 Aug	OHS	
6	29 Aug	Temporary Structures	
7	5 Sep	Cranes	
8	12 Sep	Blasting & Explosives	
9	19 Sep	Bridges	Quiz 2
Break	26 Sep		
10	3 Oct	Demolition	
11	10 Oct	De-watering	
12	17 Oct	Sustainable Construction / Revision	
13	24 Oct	No lecture	Group Project

RELEVANT RESOURCES

Textbook:
There is no prescribed textbook for this course
Moodle:
This subject has a Moodle site. It will contain additional resources for you.

COURSE COMMUNICATION

All communications on the course are to be through the Moodle discussion tool, or during the nominated lecture/workshop time slots. Using the Moodle discussion tool allows all students to see replies to any questions asked, and allows all students to join the discussions. Also use the Moodle discussion tool to create discussion topics with others in the course.

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

For information about:

- Notes on assessments and plagiarism,
- School policy on Supplementary exams,
- Special Considerations,
- Solutions to Problems,
- Year Managers and Grievance Officer of Teaching and Learning Committee, and
- CEVSOC.

Refer to Academic Advice on the School website available at:

http://www.engineering.unsw.edu.au/civil-engineering/resources/academic-advice

A. Amin 11 July 2016