

effects of concrete components on characteristics and performance of concrete. This objective contributes to the achievement of learning outcomes 1 and 2.

- ◁ Introduce you to the fundamentals of reinforced concrete (RC) design under bending, shear, and compression.

1.	<i>Describe the properties and behaviour of concrete materials.</i>	<i>PE1.1, PE1.3, PE1.5, PE2.2</i>
2.	<i>Apply the fundamentals in concrete materials to real engineering problems in large scale concrete</i>	<i>PE1.1, PE1.3, PE1.5, PE2.2</i>

20/07/2020 (Week 8) Dr Eisenträger	RC Beam . Serviceability	Shear Design of Beam RC . Serviceability and Detailing	Shear Behaviour of Beam Shear Design of Beam
27/07/2020 (Week 9) Dr Eisenträger	RC Beam . Serviceability	RC . Serviceability and Detailing	RC . Serviceability and Detailing
03/08/2020 (Week 10) Dr Eisenträger	RC One Way Slab and Short Columns	RC One Way Slab and Columns	RC One Way Slab and Columns

ASSESSMENT

The assessment components are six online assignments (40%) and the final exam (60%). The online assignments are designed for students to understand concepts and fundamental theories used in the concrete materials and the reinforced concrete design.

The final exam will assess students all aspects of the course and the type of the final exam will be an open-book and take-home exam.

The final grade for this course will normally be based on the sum of the scores from each of the assessment tasks. The Final Examination is worth 60% of the Final Mark and the class work is worth 40% of the Final Mark. *A mark of at least 40% in the final examination is required before the class work (hand-in quizzes and online tasks) is included in the final mark. The formal exam scripts will not be returned but you are permitted to view the marked script.*

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 below.

Supplementary Examinations for Term 2 2020 will be held on Monday 7th September . Friday 11th September (inclusive) should you be required to sit one. You are required to be available during these dates. Please do not to make any personal or travel arrangements during this period.

PENALTIES

Late Assignments will incur a penalty of 10% of the maximum mark per calendar day up regardless of the mark awarded. An extension will only be granted by the lecturer under exceptional circumstances.

ASSESSMENT OVERVIEW

Item	Length	Weighting	Learning outcomes assessed	Assessment Criteria <i>(this needs to explicitly describe what students are expected to demonstrate in the task)</i>	Due date and submission requirements	Deadline for absolute fail	Marks returned
1. Assignments							
Online Assignments	7 to 10 days/each	Total 40 %	1, 2, 3, 4, 5, 6	Six Online Assignments			
2. Final Exam							
Final Exam	Take home exam	60 %	1, 2, 3, 4, 5, 6	Final examination will assess students on all aspects of the course.	Exam Period		TBD

RELEVANT RESOURCES

- There is no prescribed textbook for this course

Recommended Books

- UET **BRIDGES** 2nd Edition, Prentice Hall, 2002
 - S.J. Foster, A.E. Kilpatrick, R.F. Warner, **Reinforced Concrete Basics 2E**, 2010
 - J.K. Wight, **Reinforced Concrete Mechanics & Design**, 7E, 2015
- Additional materials provided on Moodle.

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 copying or using someone else's work without their permission 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;
- Special Considerations: student.unsw.edu.au/special-consideration;
- General and Program-specific questions: [The Nucleus: Student Hub](#)

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