ABPL30038 Concrete Structures and Construction

Credit Points:	12.50
Level:	3 (Undergraduate)
Dates & Locations:	2011, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Lecture 2 hour 2 x weekly; Tutorial 1 hour 1 x weekly Total Time Commitment: 120 hours.
Prerequisites:	The subject below is a pre-requisite or equivalent.

Subject	Study Period Commencement:	Credit Points:
ABPL20042 Residential Construction and Structures	Semester 2	12.50

Corequisites:	None specified
Recommended Background Knowledge:	None specified
Non Allowed Subjects:	None specified
Core Participation Requirements:	For the purposes of considering requests for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: http://www.services.unimelb.edu.au/disability/
Coordinator:	Dr Toong-Khuan Chan
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Subject Overview:	Commercial and high rise construction (excluding industrial buildings) relies heavily of the use of reinforced concrete for the structural components. The cost of the building structure is a significant portion of the total cost of the project. The interpretation of the information provided on the engineers' reinforced concrete drawings and specifications provides the necessary means to be able to transfer this data into the physical built form. As a result, this subject investigates the rheology of concrete and the use of admixtures. Structural design concepts for reinforced concrete structures are analysed and their influence on construction methods assessed. The concepts relate to reinforced concrete frames including slab and beam systems, prestressed concrete design concepts and construction methods and composite construction systems. Other related topics include exposed concrete surface finishes, sprayed concrete technology, concrete detailing and constructability.
Objectives:	On successful completion of this subject, students should be able to: # link structural design concepts and relate these to current construction practices; # interpret concrete structural drawings and be conversant with engineering terminology; # communicate construction solutions by means of sketches and drawings; # propose and evaluate alternate construction systems.
Assessment:	Two assignments (40%).One 3 hour end of semester examination (60%).A minimum mark of 40% must be achieved in the examination in order to pass the subject.
Prescribed Texts:	Subject Reader

Breadth Options:	This subject potentially can be taken as a breadth subject component for the following courses: # **Bachelor of Arts (https://handbook.unimelb.edu.au/view/2011/B-ARTS)** # **Bachelor of Biomedicine (https://handbook.unimelb.edu.au/view/2011/B-BMED)** # **Bachelor of Commerce (https://handbook.unimelb.edu.au/view/2011/B-COM)** # **Bachelor of Environments (https://handbook.unimelb.edu.au/view/2011/B-ENVS)** # **Bachelor of Music (https://handbook.unimelb.edu.au/view/2011/B-MUS)** # **Bachelor of Science (https://handbook.unimelb.edu.au/view/2011/B-SCI)** # **Bachelor of Engineering (https://handbook.unimelb.edu.au/view/2011/B-ENG)** You should visit **learn more about breadth subjects (http://breadth.unimelb.edu.au/breadth/info/index.html)** and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	On successful completion of this subject, students should have developed the following generic skills: # analytical and evaluation skills; # communication skills; # problem solving skills; # team working skills.
Notes:	Students undertaking this subject will be expected to regularly access an internet-enabled computer primarily for technical construction product information and for the LMS.
Related Majors/Minors/ Specialisations:	Construction