421-442 Integrated Design

Credit Points:	12.500
Level:	Undergraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 8 hours of lectures and 36 hours of practical classes Total Time Commitment: Not available
Prerequisites:	421-405 Management for Engineers 3, 421-441 Infrastructure Design or 421-490 Quantification of Physical Processes A
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Priyan Mendis
Subject Overview:	This subject is the capstone subject for degrees in Civil Engineering and Environmental Engineering. Students will work as individuals on conducting an in-depth review of the literature related to an aspect of a broad design project, which will then be prosecuted by small groups. The project will require students to work in teams developing an integrated solution to a real-world engineering problem. Particular emphasis will be placed on developing innovative solutions that consider long term sustainability.
Assessment:	One scoping document (1000 word group assignment due week 3, 5%) 1 literature review (3,000 words equivalent in the 1st half of semester, 30%) and 1 group assignment (2,000 words per student equivalent) in the 2nd half of semester (50%), a critical review of two colleagues literature reviews (500 words, due week 8, 10%), one group presentation (end of semester, 10%). Team cooperation and contributions will be taken into account in awarding individual marks for team outcomes.
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	At the completion of this subject students should be able to; # demonstrate their ability to work in a team on a complex engineering project # critically evaluate engineering literature and write concise reports from that evaluation # develop a range of strategies and choose a preferred strategy that satisfies sustainability requirements # undertake the technical computations required to justify the design solution # write a technical report and/or design specifications

	# assess the work of their peers
Related Course(s):	Bachelor of Engineering (Civil Engineering) Bachelor of Engineering (Civil) and Bachelor of Arts Bachelor of Engineering (Civil) and Bachelor of Commerce Bachelor of Engineering (Civil) and Bachelor of Laws Bachelor of Engineering (Civil) and Bachelor of Science Bachelor of Engineering (EngineeringManagement) Civil Bachelor of Engineering (EngineeringManagement) Environmental Bachelor of Engineering (Environmental Engineering) Bachelor of Engineering (Environmental) and Bachelor of Arts Bachelor of Engineering (Environmental) and Bachelor of Commerce Bachelor of Engineering (Environmental) and Bachelor of Laws Bachelor of Engineering (Environmental) and Bachelor of Science