CVEN40009 Integrated Design

Credit Points:	12.50
Level:	4 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 8 hours of lectures and 36 hours of practical classes Total Time Commitment: 120 hours
Prerequisites:	One of the following subjects is required to be completed

Subject	Study Period Commencement:	Credit Points:
ENGM40001 Management for Engineers 3	Semester 1	12.50

OR

Subject	Study Period Commencement:	Credit Points:
CVEN40008 Infrastructure Design	Semester 1	12.50

OR

Subject	Study Period Commencement:	Credit Points:
421-522 Environmental Engineering Design	Not offered 2010	

OR

Subject	Study Period Commencement:	Credit Points:
421-322 Environmental Engineering Design 1	Not offered 2010	

Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
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/
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Contact:	Melbourne School of Engineering Ground Floor Old Engineering Building #173 The University of Melbourne VIC 3010 AUSTRALIA General telephone enquiries + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles + 61 3 9349 2182 + 61 3 8344 7707 Email: **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)**

Subject Overview:	This subject is the capstone subject for degrees in Civil Engineering and Environmental Engineering. Students will initially 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 followed by a small group project. 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.
Objectives:	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
Assessment:	A scoping 1000 word document group assignment due week 3 (5%) Literature review 3,000 words equivalent due in the 1st half of semester (30%) One group assignment (2,000 words per student equivalent) in the 2nd half of semester (50%) A 500 word critical review of two colleagues literature reviews due week 8 (5%)One group presentation due 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:	# Ability to apply knowledge of basic science and engineering fundamentals # In-depth technical competence in at least one engineering discipline # Ability to undertake problem identification, formulation and solution # Ability to utilise a systems approach to design and operational performance # Capacity for independent critical thought, rational inquiry and self-directed learning # Ability to communicate effectively, with the engineering team and with the community at large
Notes:	Subject last offered in 2010
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