CVEN90052 Integrated Design

Credit Points:	25
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Year Long, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 72 hours (Lectures: 32 hours, Practice classes: 40 hours) per year Total Time Commitment: 240 hours
Prerequisites:	Successful completion of the following subjects is required: **Subject** / **Study Period Commencement:** / **Credit Points:** CVEN90043 Sustainable Infrastructure Systems / Semester 1 / 12.50 CVEN90044 Engineering Site Characterisation / Semester 1 / 12.50 CVEN90045 Engineering Project Implementation / Semester 2 / 12.50 OR Admission into Master of Engineering
Corequisites:	None
Recommended Background Knowledge:	This subject assumes that students study it at the end of their degree in order to integrate their previously learned knowledge
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
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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 large 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. Students will concurrently learn applications of construction engineering, project planning and management techniques

Objectives:	At the completion of this subject students should be able to: # Identify the principles and practices in the field of construction engineering # Evaluate and explain the professional and ethical responsibilities relevant to engineering # Demonstrate their ability to work in a team on a complex engineering project # Critically evaluate engineering literature and write concise reports from that evaluation # Conduct a design as a team on a multifaceted project # Develop a range of strategies and choose a preferred strategy that satisfies sustainability requirements # Describe the roles of design, investigation and construction practices in the field of construction engineering # Create clients' and stakeholders' requirements, specifications, and professional documentation/technical report # Apply core management techniques to project execution # Assess the work of their peers
Assessment:	Two written assignments (1000 words each), during Semester 1 (5%) A 2-hour examination, end of Semester 1 (30%) An individual report (2000 words), due at the end of Semester 1 (10%) A group scoping report (2000 words), due at the beginning of Semester 2 (5%) An individual reprot (2000 words), due mid Semester 2 (10%) A peer verification report (no word limit), due mid Semester 2 (3%) A group report (2000 words per person, due at the end of the year (32%) An oral presentation (10 mins) at the end of the year (5%)
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
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 (Environmental) and Bachelor of Arts Bachelor of Engineering (Environmental) and Bachelor of Commerce Master of Engineering Project Management Master of Engineering Project Management
Related Majors/Minors/ Specialisations:	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Structural)