CVEN90052 Integrated Design

Credit Points:	25
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2011.
Time Commitment:	Contact Hours: 72 hours (Lectures: 32 hours, Practice classes: 40 hours) per year Total Time Commitment: 240 hours
Prerequisites:	The following subjects are required **Subject** / **Study Period Commencement:** / **Credit Points:** CVEN90043 Sustainable Infrastructure Systems / Not offered 2011 / 12.50 CVEN90044 Engineering Site Characterisation / Not offered 2011 / 12.50 CVEN90045 Engineering Project Implementation / Not offered 2011 / 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 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/
Contact:	Dr Tuan Ngo **dtngo@unimelb.edu.au (mailto:dtngo@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 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:	A 2-hour examination, end of Semester 1 (35%)A Scoping report (1000 words), due at the beginning of Semester 2 (10%)An individual report (3000 words), due mid Semester 2 (25%)A Peer assessment report (500 words), due mid Semester 2 (5%)A group report (2000 words per person), due at end of the year (15%)An oral presentation (10 mins), at the end of the year (10%)
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) 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
Related Majors/Minors/ Specialisations:	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Structural)