421-495 Structural Design

Credit Points:	12.50
Level:	4 (Undergraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: Forty-eight hours of lectures and tutorials. Total Time Commitment: Not available
Prerequisites:	421-307 Structural Engineering 1 and 421-317 Structural Engineering 2
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:	Assoc Prof Emad Gad
Contact:	Dr Emad Gad Department of Civil and Environmental Engineering Email: e.gad@unimelb.edu.au
Subject Overview:	On the completion of this elective unit students should appreciate the design methodology used for structures constructed of concrete, timber, masonry, cold-formed steel and composites, and be able to produce effective and economical design solutions through correct integration of these materials.
Objectives:	Students should gain practical knowledge and skills in the design of structures constructed of concrete, timber, masonry, cold-formed steel and composites. Furthermore, students should be able to produce effective and economical design solutions through understanding of relevant material properties, construction techniques and design standards.
Assessment:	A 3-hour end-of-semester examination (70%) and two assignments totalling 30%. Each assignment is no more than 3000 words, with one assignment on concrete technology and the second on design, to be undertaken throughout the semester.
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:	# the 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 systems approach to design and operational performance