421-122 Materials 2

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: Forty-eight hours of lectures and tutorials. Total Time Commitment: Not available
Prerequisites:	None
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:	Nelson Lam
Subject Overview:	Topics covered include: engineering materials such as metals (including steel, aluminium, titanium), ceramic and glasses (including concrete), polymers and composites (including timer). The basic physical properties of these materials on both the molecular scale and the structural scale are presented (encompassing composition of the materials, phase transitions and mechanical properties). the concepts of material failure, including fracture, fatigue and creep, are introduced. The corrosion and degradation of materials exposed to environmental conditions are presented. the manufacturing and engineering application of selected construction materials, including steel, aluminium, concrete and bricks, will be introduced and integrated with the fundamental concepts described above.
Assessment:	One 3-hour end of semester examination (70%), and practical work consisting of two assignments, of up to 1000 and 2000 words respectively (30%).
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 (EngineeringManagement) Civil