421-539 Geotechnical Applications (Masters)

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 36 Hours; Non contact time commitment 84 Hours 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:	John Styles/Sam Yuen
Subject Overview:	Shallow footings, bearing capacity solutions, settlement on sand and clays; Skempton-Bjerrum, Lambe and Davis Poulos methods, raft foundations, compensated foundations, expansive clays, machinery foundations, deep foundations, capacity and settlement of single piles and pile groups; introduction to rock mechanics; properties of waste materials, contaminated soils, effects of chemicals on soil properties, waste disposal systems, regulations governing waste disposal and management, site assessment/site selection, groundwater contamination, remediation techniques, liners, leachate collection systems, and use of slurry trenches.
Assessment:	Two assignments totalling 3000 words or equivalent (50%) and a 3-hour open-book examination (50%).
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:	On successful completion, students should: # be able to analyse bearing capacity and settlement characteristics of footings subjected to both static and dynamic loading # have an understanding of the application of geotechnical engineering principles to solid and liquid waste disposal and management
Related Course(s):	Master of Development Technologies Master of Energy Studies Master of Engineering Project Management Master of Engineering Structures Master of Environmental Engineering Master of Utilities Management Master of Water Resource Management