

CVEN90050 Geotechnical Engineering

Credit Points:	12.50									
Level:	9 (Graduate/Postgraduate)									
Dates & Locations:	2012, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.									
Time Commitment:	Contact Hours: 48 hours (Lectures: 3 hours per week, Tutorials: 1 hour per week) Total Time Commitment: 120 hours									
Prerequisites:	Students must have completed BOTH the following subjects, or equivalent, to enrol in this subject: <table border="1" data-bbox="387 600 1485 804"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENEN20002 Earth Processes for Engineering</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>CVEN30010 Systems Modelling and Design</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ENEN20002 Earth Processes for Engineering	Semester 2	12.50	CVEN30010 Systems Modelling and Design	Semester 2	12.50
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ENEN20002 Earth Processes for Engineering	Semester 2	12.50								
CVEN30010 Systems Modelling and Design	Semester 2	12.50								
Corequisites:	None									
Recommended Background Knowledge:	Learning in this subject will be assisted by knowledge gained in the following subject: <table border="1" data-bbox="387 981 1485 1128"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>CVEN90044 Engineering Site Characterisation</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	CVEN90044 Engineering Site Characterisation	Semester 1	12.50			
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CVEN90044 Engineering Site Characterisation	Semester 1	12.50								
Non Allowed Subjects:	This subject replaces: # 421-306 Geotechnical Engineering									
Core Participation Requirements:	<p>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.</p> <p>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</p>									
Coordinator:	Dr Guillermo Narsilio									
Contact:	Dr Guillermo A. Narsilio narsilio@unimelb.edu.au (mailto:narsilio@unimelb.edu.au)									
Subject Overview:	<p>Students completing this unit should understand how to make simplifications to complex soil conditions, how to establish strength/deformation characteristics of the soil and how to apply fundamental geomechanics knowledge learned in earlier units to solve problems involving the stability of an earth mass.</p> <p>Topics covered include a detailed review of porewater pressures and effective stress, soil strength and compressibility, consolidation, compaction and their applications to geotechnical design in selected areas such as foundations, earth retaining structures, reinforced soil, slope stability and pavements</p>									

Objectives:	On completion of this subject students should be able to: <ul style="list-style-type: none"> # Make simplifications to complex soil conditions # Establish strength/deformation characteristics of soil # Apply fundamental Geomechanics knowledge learned in earlier units to solve problems involving the stability of an earth mass
Assessment:	One 3-hour examination, end of semester (70%) Three x 1000 word assignments, due throughout the semester (30%) Hurdle requirement: Students must pass BOTH assignment and exam components to pass the subject
Prescribed Texts:	Course notes will be made available in LMS or for purchase from the University Bookroom
Recommended 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:	<ul style="list-style-type: none"> # Ability to apply knowledge of basic science and engineering fundamentals # Ability to communicate effectively, not only with engineers but also with the community at large # Ability to undertake problem identification, formulation and solution # Ability to utilise systems approach to design and operational performance # Ability to function effectively as an individual in multi-disciplinary and multicultural teams, with the capacity to be a leader or manager as well as an effective team member # Expectation of the need to undertake lifelong learning and the capacity to do so # Capacity for independent critical thought, rational inquiry and self-directed learning # Intellectual curiosity and creativity, including understanding of the philosophical and methodological bases of research activity
Related Course(s):	<p>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</p>
Related Majors/Minors/Specialisations:	<p>B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Structural)</p>