CVEN40018 Hydraulics Applications

Credit Points:	12.50
Level:	4 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: July, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Forty-eight hours of lectures and practice classes Total Time Commitment: 120 hours
Prerequisites:	421-305 Engineering Hydraulics 1 or **421-505 Engineering Hydraulics (/view/2009/421-505)** 421-316 Engineering Hydraulics and Hydrology or **421-516 Hydraulics and Hydrology (/view/2009/421-516)**
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 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/
Coordinator:	Assoc Prof Roger Hughes
Contact:	Melbourne School of Engineering Ground Floor Old Engineering Building #173 The University of Melbourne VIC 3010 AUSTRALIA General telephone enquiries + 61 3 8344 6703 + 61 3 8344 6507 Facsimiles + 61 3 9349 2182 + 61 3 8344 7707 Email: **eng-info@unimelb.edu.au (mailto:eng-info@unimelb.edu.au)**
Subject Overview:	The subject will be delivered by one of Australia's leading hydraulics consultants with a strong emphasis on projects in coastal engineering. A number of engineering projects will be selected for detailed analysis. This subject is specifically designed for those interested in hydraulics consultancy. Background hydrodynamics theory including water surface-wave mechanics will be presented as required. Other topics covered in the discussion of specific projects will include: literal drift of sand along the coastline; the natural frequencies of harbour oscillations; and wave forces on structures. General background material relating to tsunamis generation, the origins of El Nino and the behaviour of the ocean in an enhanced "greenhouse" environment will also be discussed.
Objectives:	Not available at this time.
Assessment:	One 2-hour examination (100%) Small tests and exercises will be given during the semester to indicate student progress
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:	# 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 # In-depth technical competence in at least one engineering discipline # Ability to undertake problem identification, formulation and solution # Understanding of the social, cultural, global and environmental responsibilities of the professional engineer, and the need for sustainable development # Capacity for independent critical thought, rational inquiry and self-directed learning
Notes:	Subject is offered for the last time in 2010