421-516 Hydraulics and Hydrology

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, 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:	421-305 Engineering Hydraulics 1
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 Roger Hughes
Contact:	Assoc.Professor Roger Hughes Department of Civil and Environmental Engineering Tel: +61 3 83444793 Email: rlhughes@unimelb.edu.au
Subject Overview:	Energy momentum principles and their application to a variety of open channel flow problems, uniform flow; unsteady flow in open channels, including the long wave equations and flood propagation by diffusion and kinematic routing; steady gradually-varied flow and the numerical calculation of surface profiles; rigid-boundary and erodible channels and sediment transport in rivers and canals; measurement of discharge; stream flow measurement and characteristics; water surface modelling in irregular channels; river channel morphology; fluvial processes; initiation of sediment motion; sediment transport; channel stability; and modelling of river channel changes.
Objectives:	On successful completion, students should be able to: # solve a wide range of commonly encountered hydraulic problems in rivers and canals # describe the nature of stream flow, fluvial processes and fluvial morphology # understand management issues relating to rivers and flood plains
Assessment:	One 3-hour written examination (70%) and one assignment of 1,000 words equivalent (15%) and one assignment of 500 words related to an in-depth investigation.
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
Notes:	This subject replaces:

	421-316 Engineering Hydraulics & Hydrology
Related Course(s):	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 Bachelor of Engineering (EngineeringManagement) Civil Bachelor of Engineering (EngineeringManagement) Environmental Bachelor of Engineering (Environmental Engineering) Bachelor of Engineering (Environmental) and Bachelor of Arts Bachelor of Engineering (Environmental) and Bachelor of Commerce Bachelor of Engineering (Environmental) and Bachelor of Laws Bachelor of Engineering (Environmental) and Bachelor of Science Master of Development Technologies Master of Energy Studies Master of Engineering Project Management Master of Engineering Science (Water Resource Management) Master of Engineering Structures Master of Environmental Engineering Master of Water Resource Management