421-642 Research Topic

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2009, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 1hr per week plus as arranged between student and supervisor; non contact 140 hours Total Time Commitment: Not available
Prerequisites:	All 300 level subjects
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:	Dr Lu Aye
Contact:	**Semester 1, 2009** Dr Tuan Ngo Department. of Civil and Environmental Engineering Tel: +61 3 83447950 Email: t.ngo@civenv.unimelb.edu.au **Semester 2, 2009** Assoc.Professor Jeffrey Walker Department. of Civil and Environmental Engineering Tel: +61 3 83445590 Email: j.walker@unimelb.edu.au
Subject Overview:	On conclusion of their project, students should have an appreciation of procedures involved in conducting research and have gained experience in scientific writing, and in poster and oral presentations. The subject includes supervision of project selection, literature review, methodology development, analysis and reporting of a research investigation on a relevant engineering topic.
Objectives:	At the end of this subject, students should be able to ... # search, analyse and document engineering science and other literature in order to determine the need for further research in a chosen area # devise a methodology of investigation to improve knowledge or understanding of a chosen topic # collect and analyse a range of data (both qualitative and quantitative) and/or undertake model simulation to improve understanding of a chosen topic # write a report that follows good engineering science practice # present a poster and oral presentation on the investigation to a audience of peers

Assessment:	One end-of-semester research report up to a total of 4000 words (70%); one mid-semester research proposal report of up to a total of 1500 words (10%); one exam period seminar presentation (15%); one mid-semester poster presentation (5%).
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 professional and ethical responsibilities and commitment to them # expectation of the need to undertake lifelong learning, 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 # openness to new ideas and unconventional critiques of received wisdom # profound respect for truth and intellectual integrity, and for the ethics of scholarship # international awareness and openness to the world, based on understanding and appreciation of social and cultural diversity and respect for individual human rights and dignity
Notes:	This subject is co-taught with 421-643 (CVEN00022)
Related Course(s):	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 Applied Science (Engineering Project Management) Master of Applied Science (Water Resources Management) Master of Engineering Science (Development Technologies) Master of Engineering Science (Energy Studies) Master of Engineering Science (Engineering Management) Master of Engineering Science (Engineering Project Management) Master of Engineering Science (Environmental Coursework) Master of Engineering Science (Water Resource Management) Master of Engineering Science(Biomedical Enginering) Master of Engineering Science(Engineering Structures) Master of Engineering Structures