ABPL90153 Complex Building Energy Modelling

Credit Points:	12.5
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: June, Parkville - Taught on campus. Quota: 20 This subject is a quota subject and places are limited. Students may provisionally enrol via the Student Portal, but places are not guaranteed until selection is completed. You will be notified in writing by the Student Centre if you are selected. Selection criteria: Academic merit. Priority will be given to students enrolled in the Master of Environments (Energy Efficiency Modelling and Implementation) For detailed information on the quota subject application process and due dates, refer to the EDSC Quota Subjects webpage: http://edsc.unimelb.edu.au/quota-subjects
Time Commitment:	Contact Hours: 36 hours Total Time Commitment: 170 hours
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:	Mr Christopher Jensen
Contact:	Email: **cjensen@unimelb.edu.au (mailto:cjensen@unimelb.edu.au)** The Eastern Precinct (building 138) (between Doug McDonell building and Eastern Resource Centre) **Enquiries:** Current Student: **http://ask.unimelb.edu.au/ (http://ask.unimelb.edu.au/)** Web: **http://msd.unimelb.edu.au/ (http://msd.unimelb.edu.au/)**
Subject Overview:	The subject teaches how to use two modelling approaches to investigate and communicate complex and innovative environmental solutions for energy efficient building design. Led by experienced software users from industry and from software manufactures, this course will allow students to specialise in a software tool which they may already be using at their work. Based on a case study approach students will assess an existing or new building project and prepare the documentation arguing for the innovative approaches to energy efficiency that are proposed. Focus will not only be on learning how to model these complex scenarios, but also how to interpret their practicality and develop risk profiles allowing end users to be able to choose between innovation and benefit.
Learning Outcomes:	On successful completion, students will be able to: # Model complex scenarios including natural ventilation, mixed mode/hybrid ventilation, use of passive techniques such as thermal chimneys, thermal mass, chilled beams, labyrinths, geothermal energy and solar energy

	# Use modelling to develop risk benefit scenarios # Communicate the benefits of various alternative options # Interpret results # Appreciate the relationship between design elements and thermal performance # Be able to add meaningfully to a business case of an innovative system within an active actual project
Assessment:	Concept design presentation to class, due last day of class, 20%, 1000 word equivalent; Final Report, due 3 weeks after last day of class, 40%, 2000 words; Take home exam, due 2 weeks after last day of class, 40%, 2000 word equivalent.
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
Related Course(s):	Master of Architecture Master of Architecture
Related Majors/Minors/ Specialisations:	200 point Master of Architecture 300 point Master of Architecture Energy Efficiency Modelling and Implementation Energy Efficiency Modelling and Implementation Melbourne School of Design multidisciplinary elective subjects Tailored Specialisation Tailored Specialisation