ABPL90032 Resource Friendly Building Operations

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus. On campus
Time Commitment:	Contact Hours: 1 x 3hour studio per week Total Time Commitment: 120 hours maximum, 100 hours minimum.
Prerequisites:	702-465 (ABPL40017) Environmental Systems OR The following subject: **Subject** / **Study Period Commencement:** / **Credit Points:** ABPL90086 Environmental Systems (PG) / Semester 2 / 12.50 OR Approval from the subject coordinator.
Corequisites:	None specified
Recommended Background Knowledge:	None specified
Non Allowed Subjects:	None specified
Core Participation Requirements:	None specified
Coordinator:	Dr Eckhart Hertzsch
Contact:	Environments and Design Student Centre T: +61 3 8344 6417/9862 F: +61 3 8344 5532 E: **msd-courseadvice@unimelb.edu.au (mailto:msd-courseadvice@unimelb.edu.au)**
Subject Overview:	The primary focus of this subject is designing and operating a large scale building in a resource friendly manner. After a short introduction on fundamentals on energy transfer modes and comfort the subject provides the students with knowledge on a variety of systems, technologies and components, such as facades, active solar systems, earth heat exchanger, active concrete core cooling, latest engineering services, intelligent building controls, etc. The subject intends to expose the students to energy efficient design solutions, planning methods to improve resource friendliness by showing and discussing national and international examples as well as experiencing buildings during site visits. The students will learn and understand how a building functions and comprehend how design and architectural appearance can be achieved in an energy efficient way. Furthermore they will be able to solve problems with regard to the energy concept and make improvements to existing buildings.
Objectives:	# To develop an understanding of basic modes of energy transfer; # To identify key parameters that influence the energy consumption of a building; # Gain knowledge on sustainable construction, engineering services and resource friendly operations of modern buildings; # To improve an understanding of the interdisciplinary character of creating and operating a building in a resource friendly manner.

Assessment:	Assignment due mid semester - 2000 words (40%);3 hour test in class, during the final week of semester (60%).
Prescribed Texts:	None specified
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:	On completion of the subject students should have developed the following skills and capabilities: # Critical analysis and resolution of building related problems; # Correct use of technical terminology; # Research and analysis of building methods and new products; # Ability to comprehend complex concepts and express them lucidly, orally and textually.
Links to further information:	http://www.abp.unimelb.edu.au/environments-and-design-students/melbourne-school-of-design-students.html
Related Course(s):	Master of Construction Management Master of Construction Management Master of Environment Master of Environment Master of Property Master of Property Postgraduate Certificate in Environment Postgraduate Diploma in Environment
Related Majors/Minors/ Specialisations:	Energy Efficiency Modelling and Implementation