ENEN90014 Sustainable Buildings

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: September, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours intensive subject held in the first week of the mid-semester break; Non-contact time commitment: 84 hours Total Time Commitment: -
Prerequisites:	None.
Corequisites:	None.
Recommended Background Knowledge:	None.
Non Allowed Subjects:	As follows:

Subject	Study Period Commencement:	Credit Points:
ABPL90120 Building Sustainability	September	12.50

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:	Dr Lu Aye
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Subject Overview:	This subject provides a multi-disciplinary overview of the design of sustainable buildings and considers the design from an architectural, services engineering, facade engineering, environmental engineering and structural engineering, tenants and owners perspective. Topics include: ecological sustainable design, life cycle analysis, planning for sustainable buildings and cities, regulatory environment, barriers to green buildings, green building rating tools, material selection, embodied energy, operating energy, indoor environmental quality (noise, light and air), facade systems, ventilation systems, transportation, water treatment systems, water efficiency, building economics, and staff productivity. A number of industry based case study examples will be introduced to complement the lectures.
Objectives:	On successful completion, students should be able to: # identify the critical sustainability issues that should be addressed in planning a building or new development # estimate the green star rating of a new building # identify the issues effecting indoor environmental quality # select different heating and cooling ventilation systems and justify the selection # calculate the embodied energy of different structural systems including recycled materials and faade systems # calculate the utilisation energy and greenhouse gas production of different building conceptual designs

	# carry out conceptual designs for the design of a water supply system for a building with a focus on water conservation and recycling measures and estimate the expected water consumption requirements # undertake cost studies of different green star rated buildings using life cycle cost analysis techniques
Assessment:	One two-hour written exam (40%), one written assignment of approximately 4,000 words or equivalent (60%).
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):	Graduate Certificate in Engineering (Environmental Engineering) Master of Energy Studies Master of Engineering Management Master of Engineering Management Master of Engineering Project Management Master of Engineering Project Management Master of Engineering Structures Master of Engineering Structures Master of Environment Master of Environment Master of Environmental Engineering Master of Environmental Engineering Postgraduate Certificate in Environment Postgraduate Diploma in Environment
Related Majors/Minors/ Specialisations:	Climate Change Energy Efficiency Modelling and Implementation Energy Studies