

421-670 Sustainable Buildings

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 2, - 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:	None
Core Participation Requirements:	-
Subject Overview:	<p>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.</p> <p>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.</p> <p>A number of industry based case study examples will be introduced to complement the lectures.</p>
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
Generic Skills:	<p>On successful completion, students should be able to:</p> <ul style="list-style-type: none"> # 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
Related Course(s):	Master of Engineering Structures Master of Utilities Management