

# ABPL90120 Building Sustainability

<b>Credit Points:</b>	12.5						
<b>Level:</b>	9 (Graduate/Postgraduate)						
<b>Dates &amp; Locations:</b>	2016, Parkville This subject commences in the following study period/s: September, Parkville - Taught on campus. This subject has a pre-teaching period: An optional introductory lecture will be held during orientation week. Pre-reading material will be made available via the LMS one week prior to the introductory lecture. Students are required to complete all pre-reading material during the pre-teaching period prior to the first lecture in September.						
<b>Time Commitment:</b>	Contact Hours: 30 hours of lectures and 5 hours of tutorials during the mid-semester break Total Time Commitment: 200 hours						
<b>Prerequisites:</b>	Admission into a course at the Melbourne School of Design.						
<b>Corequisites:</b>	None						
<b>Recommended Background Knowledge:</b>	None						
<b>Non Allowed Subjects:</b>	<b>702-444 Building Sustainability (UG) (.//view/2008/702-444)</b> <table border="1" data-bbox="387 913 1485 1061"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENEN90014 Sustainable Buildings</td> <td>September</td> <td>12.50</td> </tr> </tbody> </table>	Subject	Study Period Commencement:	Credit Points:	ENEN90014 Sustainable Buildings	September	12.50
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ENEN90014 Sustainable Buildings	September	12.50					
<b>Core Participation Requirements:</b>	<p>&lt;p&gt;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.&lt;/p&gt;                     &lt;p&gt;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: &lt;a href="http://services.unimelb.edu.au/disability"&gt;http://services.unimelb.edu.au/disability&lt;/a&gt;&lt;/p&gt;                 </p>						
<b>Coordinator:</b>	Assoc Prof Masa Noguchi						
<b>Contact:</b>	Subject Coordinator email: <b><a href="mailto:masa.noguchi@unimelb.edu.au">masa.noguchi@unimelb.edu.au</a> (<a href="mailto:masa.noguchi@unimelb.edu.au">mailto:masa.noguchi@unimelb.edu.au</a>)</b> The Eastern Precinct (building 138) (between Doug McDonnell building and Eastern Resource Centre) <b>Enquiries:</b> Current Student: <a href="http://ask.unimelb.edu.au/">http://ask.unimelb.edu.au/</a> ( <a href="http://ask.unimelb.edu.au/">http://ask.unimelb.edu.au/</a> ) Web: <a href="http://msd.unimelb.edu.au/">http://msd.unimelb.edu.au/</a> ( <a href="http://msd.unimelb.edu.au/">http://msd.unimelb.edu.au/</a> )						
<b>Subject Overview:</b>	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.
<b>Learning Outcomes:</b>	<p>On successful completion, students should be able to:</p> <ul style="list-style-type: none"> <li># identify the critical sustainability issues that should be addressed in planning a building or new development;</li> <li># estimate the green star rating of a new building;</li> <li># identify the issues effecting indoor environmental quality;</li> <li># select different heating and cooling ventilation systems and justify the selection;</li> <li># calculate the embodied energy of different structural systems including recycled materials and faade systems;</li> <li># calculate the utilisation energy and greenhouse gas production of different building conceptual designs;</li> <li># 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 requirement;</li> <li># undertake cost studies of different green star rated buildings using life cycle cost analysis techniques.</li> </ul>
<b>Assessment:</b>	One 2-hour written exam conducted during second semester exam period, (40%) A test (500 word equivalent) held one week after the end of the intensive teaching week (10%) Written group assignments (3000 words per person), peer assessment will be used, due 4 weeks after teaching period (50%)
<b>Prescribed Texts:</b>	None
<b>Breadth Options:</b>	This subject is not available as a breadth subject.
<b>Fees Information:</b>	Subject EFTSL, Level, Discipline & Census Date, <a href="http://enrolment.unimelb.edu.au/fees">http://enrolment.unimelb.edu.au/fees</a>
<b>Generic Skills:</b>	<ul style="list-style-type: none"> <li># Self-directed learning.</li> <li># Written, verbal and visual presentation of ideas.</li> <li># Essay and report writing.</li> <li># Graphic communication skills.</li> <li># Ability to analyse social and cultural contexts.</li> <li># Critical thinking and analysis.</li> <li># Appropriate use of design terminology.</li> </ul>
<b>Related Course(s):</b>	Master of Architectural Engineering Master of Architecture Master of Architecture Master of Design (Urban Design) Master of Urban Design
<b>Related Majors/Minors/ Specialisations:</b>	200 point Master of Architecture 300 point Master of Architecture Climate Change Climate Change Energy Efficiency Modelling and Implementation Energy Efficiency Modelling and Implementation Melbourne School of Design multidisciplinary elective subjects Tailored Specialisation Tailored Specialisation