

## MULT10013 Sustainability in Developing Communities

<b>Credit Points:</b>	12.50
<b>Level:</b>	1 (Undergraduate)
<b>Dates &amp; Locations:</b>	This subject is not offered in 2014.
<b>Time Commitment:</b>	Contact Hours: One 2 hour lecture and one three hour workshop per week Total Time Commitment: 170 hours
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	None
<b>Non Allowed Subjects:</b>	None
<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>Contact:</b>	<b><a href="mailto:dcshal@unimelb.edu.au">dcshal@unimelb.edu.au</a> (mailto:dcshal@unimelb.edu.au)</b>
<b>Subject Overview:</b>	<p><b>AIMS</b></p> <p>The volunteer organisation Engineers Without Borders (EWB) seeks involvement of teams of first-year students in a 'challenge' to devise solutions for real problems in under-developed communities. In this subject you will work in teams to develop conceptual solutions for sustainable development projects identified by EWB's community partners that contribute towards real international development projects.</p> <p>From each of the diverse and practical projects offered by the EWB, you will have the opportunity to choose from a range of problems. Each of these problems will require you to develop new technical and communication skills, whilst encouraging innovation and creativity in order to address the needs of the overall project.</p> <p>The four best team proposals will be submitted for external judging. The national winning proposal is used in discussions with that local community to develop practical solutions to the challenges of poverty, and improve the quality of lives from a social, environmental and economic perspective.</p> <p>(See: <a href="http://www.ewb.org.au/whatwedoinstitute/ewb-challenge">http://www.ewb.org.au/whatwedoinstitute/ewb-challenge</a> (<a href="http://www.ewb.org.au/whatwedoinstitute/ewb-challenge">http://www.ewb.org.au/whatwedoinstitute/ewb-challenge</a>) )</p> <p><b>INDICATIVE CONTENT</b></p> <p>Topics covered include sustainability, community development, teamwork and reflective practice. Processes include reflective writing, teamwork, and proposal development.</p>
<b>Learning Outcomes:</b>	<p><b>INTENDED LEARNING OUTCOMES (ILO)</b></p> <p>On completion of this subject the student should be able to demonstrate:</p> <ol style="list-style-type: none"> <li>1 The use of a systems approach to problem solving that considers the appropriateness of any solution to the problem context</li> <li>2 The ability to apply knowledge and concepts drawn from various disciplines to the cultural setting and develop innovative solutions to the problem</li> </ol>

	<ul style="list-style-type: none"> <li>3 Skills in integrating sustainable development, problem context and ethical considerations into the decision making process</li> <li>4 The ability to undertake problem identification, formulation and solution whilst considering the specific context of the problem</li> <li>5 The ability to evaluate the environmental benefits and impacts of a solution against other decision drivers to find the optimal solution</li> <li>6 Recognition of the need for community development / engagement principles to be applied to inform the development of potential solutions, the decision-making processes and the implementation and understanding of the key principle that the positive values of a proposal must be greater than the costs to the community</li> <li>7 Awareness of the implications of the physical context of the site i.e. geographic location and environmental factors</li> <li>8 The ability to communicate effectively, not only with other professionals but also with the community at large, through written, oral and visual media</li> </ul>
<b>Assessment:</b>	Weekly Reflective Journal entry plus 500 word meta-review of learning in weeks 6 & 12 (20%) 1,000 word written outline of one design option in week 8 (10%) Active participation in studio/ workshop processes in weeks 1-12 (20%) 5 minute oral presentation and a group final project submission of 6,000 words equivalent (50%) in week 12 Intended Learning Outcomes (ILOs) 1 to 8 are all addressed in the reflective journal, active participation and the final proposal.
<b>Prescribed Texts:</b>	None
<b>Recommended Texts:</b>	None
<b>Breadth Options:</b>	<p>This subject potentially can be taken as a breadth subject component for the following courses:</p> <ul style="list-style-type: none"> <li># <b>Bachelor of Arts</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-ARTS">https://handbook.unimelb.edu.au/view/2014/B-ARTS</a>)</li> <li># <b>Bachelor of Biomedicine</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-BMED">https://handbook.unimelb.edu.au/view/2014/B-BMED</a>)</li> <li># <b>Bachelor of Commerce</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-COM">https://handbook.unimelb.edu.au/view/2014/B-COM</a>)</li> <li># <b>Bachelor of Environments</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-ENVS">https://handbook.unimelb.edu.au/view/2014/B-ENVS</a>)</li> <li># <b>Bachelor of Music</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-MUS">https://handbook.unimelb.edu.au/view/2014/B-MUS</a>)</li> <li># <b>Bachelor of Science</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-SCI">https://handbook.unimelb.edu.au/view/2014/B-SCI</a>)</li> <li># <b>Bachelor of Engineering</b> (<a href="https://handbook.unimelb.edu.au/view/2014/B-ENG">https://handbook.unimelb.edu.au/view/2014/B-ENG</a>)</li> </ul> <p>You should visit <b>learn more about breadth subjects</b> (<a href="http://breadth.unimelb.edu.au/breadth/info/index.html">http://breadth.unimelb.edu.au/breadth/info/index.html</a>) and read the breadth requirements for your degree, and should discuss your choice with your student adviser, before deciding on your subjects.</p>
<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>	<p>At the end of this subject you should have developed:</p> <ul style="list-style-type: none"> <li># The ability to work in teams</li> <li># To engage with complex real world problems in under-developed communities and arrive at culturally sensitive and sustainable solutions</li> <li># Ability to integrate knowledge across and between disciplines in order to achieve the desired outcomes of the project</li> <li># Understanding of social and cultural diversity – including Indigenous cultures; valuing different cultures</li> <li># Global citizenship skills by advocating for improving the sustainability of the environment</li> </ul>
<b>Notes:</b>	<p><b>LEARNING AND TEACHING METHODS</b></p> <p>This is a project-based design subject. A series of multidisciplinary lectures address sustainability and community development. Students work in small teams to complete a proposal for the EWB Challenge. Students are expected to attend all classes and to keep a weekly reflective journal.</p> <p><b>INDICATIVE KEY LEARNING RESOURCES</b></p>

Students will have access to lecture notes and lecture slides and to all resources developed by the EWB Challenge. The subject LMS site also contains a range of resources about the design process, reflective practice, teamwork, and community development.

**CAREERS / INDUSTRY LINKS**

Engineers Without Borders.