

## ENEN90006 Solid Wastes to Sustainable Resources

<b>Credit Points:</b>	12.50
<b>Level:</b>	9 (Graduate/Postgraduate)
<b>Dates &amp; Locations:</b>	This subject is not offered in 2013.
<b>Time Commitment:</b>	Contact Hours: Lectures: 24 hours per semester, Tutorials/Seminars: 12 hours per semester, Site visits: 2 visits per semester Total Time Commitment: 120 hours
<b>Prerequisites:</b>	None
<b>Corequisites:</b>	None
<b>Recommended Background Knowledge:</b>	Admission to post graduate studies in engineering or equivalent
<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>	Dr Graham Moore <a href="mailto:grahamam@unimelb.edu.au">grahamam@unimelb.edu.au</a> (mailto:grahamam@unimelb.edu.au)
<b>Subject Overview:</b>	In this subject students will learn about the fundamentals of the solid waste stream in modern society. Emphasis will be placed on the life cycle aspects of waste and the prospect of minimizing waste and maximizing the economic value of waste streams. Interaction between solid wastes and liquid and gaseous waste streams will also be considered
<b>Objectives:</b>	<p>On successful completion, students will be able to:</p> <ul style="list-style-type: none"> <li># Describe the major environmental problems caused by inappropriate production and disposal of solid by-products manufacturing and consumption</li> <li># Identify and describe the role of various systems of treatment of hazardous wastes</li> <li># Classify and model sources of solid wastes</li> <li># Conduct life cycle analysis and cleaner production assessments</li> <li># Apply principles of sustainable development to the management of solid by-products</li> <li># Identify design inputs to enable the avoidance, minimization, recycling, re-use and treatment of solid by-products</li> <li># Analyse the role of regulatory systems in solid wastes management</li> </ul>
<b>Assessment:</b>	Two 1500 word group reports, due weeks 5 and 10 (30%) Two 2000 word individual reports, due week 3 and 7 (50%) Five electronic journal entries, each of approximately 200 words, to be submitted during the semester (10%) One 10 minute seminar presentation to be given during the semester and participation in seminars (10%) Hurdle requirement: Attendance at two site visits is a hurdle requirement to pass this subject
<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># Ability to undertake problem identification, formulation, and solution</li> <li># Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development</li> <li># Capacity for creativity and innovation</li> <li># Understanding of professional and ethical responsibilities, and commitment to them</li> <li># Capacity for lifelong learning and professional development</li> </ul>
<b>Notes:</b>	Safety boots, high visibility vests and safety spectacles are required for site visits
<b>Related Course(s):</b>	Bachelor of Engineering (Civil Engineering) Master of Environmental Engineering Master of Environmental Engineering Master of Philosophy - Engineering Ph.D.- Engineering Postgraduate Certificate in Engineering
<b>Related Majors/Minors/ Specialisations:</b>	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Waste Management