ENEN90006 Solid Wastes to Sustainable Resources

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 36 hours of lectures and 2 site visits Total Time Commitment: 120 hours per semester
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	An Engineering undergraduate degree or equivalent
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering requests 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/
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Subject Overview:	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.
Objectives:	On successful completion, students will be able to # Describe the major environmental problems caused by inappropriate production and disposal of solid by-products manufacturing and consumption # Identify and describe the role of various systems of treatment of hazardous wastes # Classify and model sources of solid wastes # Conduct life cycle analysis and cleaner production assessments # Apply principles of sustainable development to the management of solid by-products # Conduct conceptual designs to enable the avoidance, minimization, recycling, re-use and treatment of solid by-products # Analyse the role regulatory systems in solid wastes management
Assessment:	Two 1500 word group reports due weeks 5 and 10 (30%)Two 2000 word individual report due week 7 and 12 (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 (10%)Attendance at two site visits is a hurdle requirement

Prescribed Texts:	N/A
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:	# Ability to undertake problem identification, formulation, and solution # Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development # Capacity for creativity and innovation # Understanding of professional and ethical responsibilities, and commitment to them # Capacity for lifelong learning and professional development
Notes:	Safety boots, high visibility vests and safety spectacles are required for site visits
Related Course(s):	Graduate Certificate in Engineering (Environmental Engineering) Master of Environment Master of Environment Master of Environmental Engineering Master of Environmental Engineering Master of Water Resource Management Master of Water Resource Management Postgraduate Certificate in Engineering Postgraduate Certificate in Environment Postgraduate Diploma in Environment
Related Majors/Minors/ Specialisations:	Waste Management