

# ENEN90029 Water and Waste Water Management

<b>Credit Points:</b>	12.50		
<b>Level:</b>	9 (Graduate/Postgraduate)		
<b>Dates &amp; Locations:</b>	2013, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.		
<b>Time Commitment:</b>	Contact Hours: 42 hours, comprising of one 1-hour lecture and two hours of workshop per week; one 6-hour practical site visit 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		
	<b>Subject</b>	<b>Study Period Commencement:</b>	<b>Credit Points:</b>
	CVEN30010 Systems Modelling and Design	Not offered 2013	12.50
<b>Non Allowed Subjects:</b>	Students cannot enrol in and gain credit for this subject and:		
	<b>Subject</b>	<b>Study Period Commencement:</b>	<b>Credit Points:</b>
	421-640 Water Supply and Waste Water Management	Not offered 2010	
	OR		
	<b>Subject</b>	<b>Study Period Commencement:</b>	<b>Credit Points:</b>
	421-605 Managing Water Borne Risks	Not offered 2010	
<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>	Dr Meenakshi Arora		
<b>Contact:</b>	Dr. Meenaskshi Arora <a href="mailto:marora@unimelb.edu.au">marora@unimelb.edu.au</a> ( <a href="mailto:marora@unimelb.edu.au">mailto:marora@unimelb.edu.au</a> )		
<b>Subject Overview:</b>	<p>This subject covers theoretical and practical management aspects of water supply and treatment, wastewater treatment and reuse. Specific topics include:</p> <ul style="list-style-type: none"> <li># Integrated water management</li> <li># Risk identification and management for water services</li> <li># Water supply treatment and quality criteria</li> </ul>		

	<ul style="list-style-type: none"> <li># Water treatment processes and waste disposal</li> <li># Wastewater treatment - physical, chemical and biological treatment technologies</li> <li># Systems for water reclamation and reuse</li> <li># Sewerage; avoidance, minimisation, recycling and reuse</li> </ul> <p>The students will produce a conceptual design of a water and wastewater treatment system for a small town</p>
<b>Objectives:</b>	<p>On completion of this subject students should be able to:</p> <ul style="list-style-type: none"> <li># Identify and recognise the common measures of water quality and the associated standards and criteria</li> <li># Recognise the major risks whose incidence is much affected by water quality</li> <li># Identify and describe the means of controlling those risks through quality of water supply</li> <li># Describe a wide range of technologies for the safe disposal of human waste</li> <li># Identify and describe the role of microbiology in modifying water systems</li> <li># Apply principles of sustainable development to the management of water borne wastes</li> <li># Conduct conceptual designs to enable the avoidance, minimization, recycling, re-use and treatment of water borne pollutants</li> </ul>
<b>Assessment:</b>	Two group assignment tasks, totalling 4000 words, due week 6 and 11 of semester (50%) One 2-hour examination, held in the examination 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># 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>Related Course(s):</b>	Bachelor of Engineering (Civil Engineering) Master of Environmental Engineering Master of Environmental Engineering Master of Philosophy - Engineering Ph.D.- Engineering
<b>Related Majors/Minors/Specialisations:</b>	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Waste Management