

217-WR Master of Water Resource Management

Year and Campus:	2008																																
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees																																
Level:	Graduate/Postgraduate																																
Duration & Credit Points:																																	
Contact:	Course Coordinator Assoc. Professor H M Malano E: hectormm@unimelb.edu.au Faculty of Engineering Manager, Planning & Projects (Academic Programs) Rebecca Randall E: r.randall@unimelb.edu.au																																
Course Overview:	<p>The Graduate Program in Water Resources Management is designed to meet the theoretical and practical needs of professionals working in water resources authorities, consultancy, education and related fields.</p> <p>The program provides participants with a broad understanding of the issues involved in water resources management and development. Participants are able to focus on various areas of water resources management by tailoring their programs to their specific needs and interests.</p> <p>Participants are able to choose from a wide range of elective subjects and focus their program on various areas including water science and engineering, management or institutional aspects of water resources.</p> <p>Themes covered include: irrigation and drainage design and management, surface hydrology, groundwater hydrology, surface and groundwater quality management, water resources allocation and competition, water resources policy, water resources institutions, water resources economics, and institutional, legal and political framework.</p>																																
Objectives:	<p>That a graduate of the program should:</p> <ul style="list-style-type: none"> # acquire skills in the planning, developing and managing of water resource systems in a sustainable manner; # gain experience of research in a chosen area of water resources management, development and use; # gain advanced knowledge of principles and implementation of integrated water resources management. 																																
Course Structure & Available Subjects:	-																																
Subject Options:	<p>Core Subjects: (25 points)</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>421-668 Sustainable Irrigation System Management</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>421-627 Sustainable Water Resources Management</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Restricted Elective Subjects (a minimum of 25 points)</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>421-518 Applied Hydrology</td> <td>Not offered 2008</td> <td>6.250</td> </tr> <tr> <td>421-520 Canal Hydraulics</td> <td>Not offered 2008</td> <td>6.250</td> </tr> <tr> <td>421-640 Water Supply and Waste Water Management</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>421-609 Technology in Society</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>421-616 Technology Assessment</td> <td>Semester 1</td> <td>12.50</td> </tr> <tr> <td>421-668 Sustainable Irrigation System Management</td> <td>Semester 1</td> <td>12.50</td> </tr> </tbody> </table> <p>Elective Subjects: up to a maximum of 50 points</p>			Subject	Study Period Commencement:	Credit Points:	421-668 Sustainable Irrigation System Management	Semester 1	12.50	421-627 Sustainable Water Resources Management	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	421-518 Applied Hydrology	Not offered 2008	6.250	421-520 Canal Hydraulics	Not offered 2008	6.250	421-640 Water Supply and Waste Water Management	Semester 1	12.50	421-609 Technology in Society	Semester 1	12.50	421-616 Technology Assessment	Semester 1	12.50	421-668 Sustainable Irrigation System Management	Semester 1	12.50
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aken from the Electives List or other subjects approved by the Course Coordinator. A student may only take up to a maximum of 25 points by research.

Subject	Study Period Commencement:	Credit Points:
421-511 Advanced Concrete Theory & Design	Not offered 2008	12.500
421-519 Design of Environmental Systems	Semester 2	12.50
421-516 Hydraulics and Hydrology	Semester 2	12.50
421-625 Case Studies in Development Technologies	2	12.500
421-521 Coastal Engineering	Not offered 2008	12.500
421-513 Computer Aided Design (Masters)	Not offered 2008	6.250
421-626 Design of Energy Systems	Semester 2	12.50
421-517 Earthquake Engineering (Masters)	Not offered 2008	6.250
421-629 Energy Efficiency Technology	Semester 2	12.50
421-619 Energy for Sustainable Development	Semester 2	12.50
421-825 Energy from Biomass and Wastes	Not offered 2008	12.500
421-505 Engineering Hydraulics	Semester 1	12.50
421-680 Engineering for Sustainable Environments	Summer	12.50
421-663 Engineering Project Management	Semester 1	12.50
421-553 Engineering Systems Management (Masters)	1	12.500
421-522 Environmental Engineering Design	Semester 2	12.50
421-604 Environmental Management ISO 14000	Semester 2	12.50
421-525 Field Data Acquisition and Analysis	Semester 1	12.50
421-636 Applied Fortran Programming	Semester 2	12.50
421-602 Air Quality Control	Semester 1	12.50
421-514 General Structural Design	Not offered 2008	6.250
421-539 Geotechnical Applications	Semester 2	12.50
421-697 Heating, Ventilation and Airconditioning	Semester 1	12.50
421-515 High Rise Structures (Masters)	Not offered 2008	12.500
421-637 Indoor Environment Quality	Not offered 2008	12.500
421-523 Occupational Health and Safety Basics	Semester 1, Semester 2	12.50
421-605 Managing Water Borne Risks	Semester 2	12.50
421-681 Management for the Environment	Semester 2	12.50
421-666 Management of Project Resources	Semester 2	12.50
421-654 Principles of Asset Management	Semester 1	12.50
421-664 Project Delivery	Semester 2	12.50

	421-667 Project Management Practices	Semester 2	12.50
	421-580 Hydrological Processes 1	Semester 1	12.50
	421-581 Hydrological Processes 2	Semester 1	12.50
	421-606 Solid Wastes to Sustainable Resources	Semester 1	12.50
	421-649 Special Studies	Semester 1, Semester 2	12.50
	421-512 Structural Dynamics	Not offered 2008	6.250
	421-547 Transport Engineering (Masters)	Not offered 2008	12.500
Entry Requirements:	<p>Entry Requirements</p> <p>4 year degree in engineering or science in a relevant discipline with an average grade of at least 65% or via pathway (average grade equivalent to at least 65% at the University of Melbourne).</p> <p>Language Requirements</p> <p>International students and students whose prior qualifications are from a university overseas where English is not the official language of instruction and examination need to supply proof of academic English language competency. Proof acceptable to the University includes:</p> <p>Original evidence of an English Language test score at a sitting within the last 24 months of either -</p> <p>TOEFL - at least 577 and a TWE of at least 4.5 (paper based) or a TOEFL of at least 233 with an Essay Rating of at least 4.5 (computer based) or IELTS - at least 6.5. (A minimum band score of 6 is required in the Academic Writing module).</p> <p>Entry under a slightly lower Engineering alternative* English Language entry requirement is available as follows:</p> <p>TOEFL - at least 550, with a TWE of 4 or the computer based TOEFL of at least 213 with an Essay Rating Score of at least 4 and agreeing in writing to undertake and pass an ESL subject in the first semester of study at The University of Melbourne or IELTS - at least 6 and agreeing in writing to undertake and pass an ESL subject in the first semester of study at The University of Melbourne.</p> <p>* The Faculty of Engineering's English Language alternative may affect the duration and cost of your course.</p>		
Core Participation Requirements:	-		
Further Study:	-		
Graduate Attributes:	-		
Generic Skills:	-		