

217-WR Master of Water Resource Management

Year and Campus:	2009																										
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees																										
Level:	Graduate/Postgraduate																										
Duration & Credit Points:																											
Coordinator:	Assoc.Professor Hector Malano Department of Civil and Environmental Engineering Tel: +61 3 83446645 Email: hectormm@unimelb.edu.au																										
Contact:	<p>Course Coordinator: Assoc. Professor H M Malano E: hectormm@unimelb.edu.au</p> <p>School of Engineering: Rebecca Randall E: r.randall@unimelb.edu.au</p>																										
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. 																										
Subject Options:	<p>CourseStream Core Subjects</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>Not offered 2009</td> <td>12.500</td> </tr> <tr> <td>421-627 Sustainable Water Resources Management</td> <td>Semester 2</td> <td>12.500</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>421-640 Water Supply and Waste Water Management</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>421-616 Technology Assessment</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>421-516 Hydraulics and Hydrology</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>421-609 Technology in Society</td> <td>Not offered 2009</td> <td>12.500</td> </tr> </tbody> </table> <p>Elective Subjects</p>			Subject	Study Period Commencement:	Credit Points:	421-668 Sustainable Irrigation System Management	Not offered 2009	12.500	421-627 Sustainable Water Resources Management	Semester 2	12.500	Subject	Study Period Commencement:	Credit Points:	421-640 Water Supply and Waste Water Management	Semester 1	12.500	421-616 Technology Assessment	Semester 1	12.500	421-516 Hydraulics and Hydrology	Semester 2	12.500	421-609 Technology in Society	Not offered 2009	12.500
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37.5 points of subjects chosen from Electives Table or other subjects approved by the Course Coordinator (not more than 25 points research)

Subject	Study Period Commencement:	Credit Points:
421-519 Design of Environmental Systems	Semester 2	12.500
421-626 Design of Energy Systems	Semester 2	12.500
421-629 Energy Efficiency Technology	Semester 2	12.500
421-505 Engineering Hydraulics	Semester 1	12.500
421-680 Engineering for Sustainable Environments	Summer	12.500
421-663 Engineering Project Management	Semester 1	12.500
421-522 Environmental Engineering Design	Semester 2	12.500
421-604 Environmental Management ISO 14000	Semester 2	12.500
421-525 Field Data Acquisition and Analysis	Semester 1	12.500
421-602 Air Quality Control	Semester 1	12.500
421-539 Geotechnical Applications	Semester 2	12.500
421-697 Heating, Ventilation and Airconditioning	Semester 1	12.500
421-523 Occupational Health and Safety Basics	Semester 1, Semester 2	12.500
421-605 Managing Water Borne Risks	Semester 2	12.500
421-681 Management for the Environment	Semester 2	12.500
421-666 Management of Project Resources	Semester 2	12.500
421-654 Principles of Asset Management	Semester 1	12.500
421-664 Project Delivery	Semester 2	12.500
421-667 Project Management Practices	Semester 2	12.500
421-580 Hydrological Processes 1	Semester 1	12.500
421-581 Hydrological Processes 2	Semester 1	12.500
421-606 Solid Wastes to Sustainable Resources	Semester 1	12.500
421-694 Advanced Design of High Rise Structures	Semester 1	12.500

Entry Requirements:

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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).

Language Requirements

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:

Original evidence of an English Language test score at a sitting within the last 24 months of either -

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>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</p> <p>or</p> <p>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>
<p>Core Participation Requirements:</p>	<p><p>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.</p> <p>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: http://services.unimelb.edu.au/disability</p></p>
<p>Further Study:</p>	<p>-</p>