

## 214-EN Master of Energy Studies

<b>Year and Campus:</b>	2009																												
<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>Level:</b>	Graduate/Postgraduate																												
<b>Duration &amp; Credit Points:</b>																													
<b>Coordinator:</b>	Dr Lu Aye Department of Civil and Environmental Engineering Tel: +61 3 8344 6879 Email: lua@unimelb.edu.au																												
<b>Contact:</b>	Course Coordinator Dr Lu Aye E: lua@unimelb.edu.au School of Engineering Rebecca Randall E: r.randall@unimelb.edu.au																												
<b>Course Overview:</b>	<p>The Graduate Program in Energy Studies is designed to meet the theoretical and practical needs of professionals working in the field of energy use and planning, both in government and private sectors.</p> <p>The program provides participants with a broad understanding of the range of technologies, conventional and nonconventional, that can be used for energy supply. Issues of energy planning, energy end use and the non-technical factors influencing the acceptance of energy technologies can also be studied.</p> <p>Themes covered in this program include: renewable energy technologies, conventional energy technologies, energy sources and resources, energy conversion and utilisation, energy from wastes, barriers to technology transfer, environmental effects of energy use and energy efficiency.</p>																												
<b>Objectives:</b>	<p>That a graduate of the program should:</p> <ul style="list-style-type: none"> <li># acquire key employment skills in the engineering practice of energy technologies;</li> <li># gain advanced knowledge in a chosen area of interest in energy technologies, planning and use.</li> </ul>																												
<b>Course Structure &amp; Available Subjects:</b>	<p>The Master of Energy Studies provides participants with a broad understanding of the range of technologies, both conventional and non-conventional, that can be used for energy supply. The program is designed to enhance career prospects for graduate engineers and scientists working or wishing to work in the field of energy use and planning, both in government and private sectors.</p> <p>A two-semester program on a full-time basis comprising 100 points, consisting of:</p>																												
<b>Subject Options:</b>	<p>The course consists of eight subjects.</p> <p><b>Core subjects: (37.5 points)</b></p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>421-626 Design of Energy Systems</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>421-629 Energy Efficiency Technology</td> <td>Semester 2</td> <td>12.500</td> </tr> <tr> <td>421-616 Technology Assessment</td> <td>Semester 1</td> <td>12.500</td> </tr> </tbody> </table> <p><b>Restrictive Elective Subjects: a minimum of 25 points</b></p> <p>A further minimum of two subjects chosen from</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>421-602 Air Quality Control</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>421-697 Heating, Ventilation and Airconditioning</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>421-711 Solar Energy</td> <td>Semester 1</td> <td>12.500</td> </tr> <tr> <td>421-670 Sustainable Buildings</td> <td>Semester 2</td> <td>12.500</td> </tr> </tbody> </table>		Subject	Study Period Commencement:	Credit Points:	421-626 Design of Energy Systems	Semester 2	12.500	421-629 Energy Efficiency Technology	Semester 2	12.500	421-616 Technology Assessment	Semester 1	12.500	Subject	Study Period Commencement:	Credit Points:	421-602 Air Quality Control	Semester 1	12.500	421-697 Heating, Ventilation and Airconditioning	Semester 1	12.500	421-711 Solar Energy	Semester 1	12.500	421-670 Sustainable Buildings	Semester 2	12.500
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**Elective Subjects: up to a maximum of 37.5 points**

to be chosen from the list of approved electives or other subjects with the approval of the Course Coordinator. A student is limited to a maximum of 25 points by research.

Remaining four subjects to be chosen from the list of approved electives including but not limited to:

Subject	Study Period Commencement:	Credit Points:
421-505 Engineering Hydraulics	Semester 1	12.500
421-516 Hydraulics and Hydrology	Semester 2	12.500
421-519 Design of Environmental Systems	Semester 2	12.500
421-522 Environmental Engineering Design	Semester 2	12.500
421-523 Occupational Health and Safety Basics	Semester 1, Semester 2	12.500
421-525 Field Data Acquisition and Analysis	Semester 1	12.500
421-539 Geotechnical Applications	Semester 2	12.500
421-553 Engineering Systems Management (Masters)	Not offered 2009	12.50
421-580 Hydrological Processes 1	Semester 1	12.500
421-581 Hydrological Processes 2	Semester 1	12.500
421-604 Environmental Management ISO 14000	Semester 2	12.500
421-605 Managing Water Borne Risks	Semester 2	12.500
421-606 Solid Wastes to Sustainable Resources	Semester 1	12.500
421-626 Design of Energy Systems	Semester 2	12.500
421-627 Sustainable Water Resources Management	Semester 2	12.500
421-629 Energy Efficiency Technology	Semester 2	12.500
421-640 Water Supply and Waste Water Management	Semester 1	12.500
421-663 Engineering Project Management	Semester 1	12.500
421-664 Project Delivery	Semester 2	12.500
421-666 Management of Project Resources	Semester 2	12.500
421-667 Project Management Practices	Semester 2	12.500
421-668 Sustainable Irrigation System Management	Not offered 2009	12.500
421-681 Management for the Environment	Semester 2	12.500
421-711 Solar Energy	Semester 1	12.500

**Entry Requirements:**

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:

	<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)</p> <p><b>or</b></p> <p>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</p> <p><b>or</b></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>
<b>Core Participation Requirements:</b>	-
<b>Graduate Attributes:</b>	-
<b>Generic Skills:</b>	-