

Energy Efficiency Modelling and Implementation

Year and Campus:	2010																																			
Coordinator:	Dr Dominique Hes and Dr Lu Aye																																			
Contact:	dhes@unimelb.edu.au l.aye@unimelb.edu.au																																			
Overview:	<p>Energy modelling and implementation for buildings has become an important area in the light of growing concerns about climate change, energy security and the general need to adopt more sustainable practices. Despite the obvious need for people with such knowledge, there is a severe shortage of people that are trained in energy modelling who have the capacity to interpret the modelling results to effective practice. The realms of energy knowledge required include heating and cooling requirements, as well as use of day lighting and natural lighting. These skills are crucial to being able to reduce the risk in the integration of innovative sustainability initiatives, this risk reduction centres on assurances of performance and delivery of desired sustainability outcomes.</p> <p>Energy modelling is a key tool for the development and adoption of energy efficiency in new and existing buildings. This course develops the skills of complex modelling informed by an understanding of the results ensuring the graduate has the ability to both interpret and communicate outcomes effectively. Units of study include a mix of building management, architecture, engineering, management, education and communication subjects.</p>																																			
Objectives:	<p>Students who complete the Master of Environment will have:</p> <ul style="list-style-type: none"> # An advanced understanding of the ideas concerning environmental issues # Advanced skills and techniques applicable to changing and managing the environment # An ability to evaluate and synthesise research and professional literature in the chosen stream or focus of study # An advanced understanding of the international context and sensitivities of environmental assessment 																																			
Structure & Available Subjects:	The subjects available are listed below.																																			
Subject Options:	<p>Core Subjects Students are required to complete the subjects:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>MULT90005 Trans-disciplinary thinking & learning</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>MULT90004 Sustainability Policy and Management</td> <td>March</td> <td>12.50</td> </tr> <tr> <td>ENEN90011 Energy Efficiency Technology</td> <td>Semester 2</td> <td>12.50</td> </tr> <tr> <td>421-711 Solar Energy</td> <td>Not offered 2010</td> <td></td> </tr> <tr> <td>ABPL90153 Complex Building Energy Modelling</td> <td>January</td> <td>12.50</td> </tr> <tr> <td>ABPL90086 Environmental Systems (PG)</td> <td>Semester 2</td> <td>12.50</td> </tr> </tbody> </table> <p>Elective Subjects and choose the remaining subjects from the list of:</p> <table border="1"> <thead> <tr> <th>Subject</th> <th>Study Period Commencement:</th> <th>Credit Points:</th> </tr> </thead> <tbody> <tr> <td>ENEN90014 Sustainable Buildings</td> <td>September</td> <td>12.50</td> </tr> <tr> <td>421-682 Engineering Systems Management</td> <td>Not offered 2010</td> <td></td> </tr> <tr> <td>421-711 Solar Energy</td> <td>Not offered 2010</td> <td></td> </tr> </tbody> </table>			Subject	Study Period Commencement:	Credit Points:	MULT90005 Trans-disciplinary thinking & learning	Semester 2	12.50	MULT90004 Sustainability Policy and Management	March	12.50	ENEN90011 Energy Efficiency Technology	Semester 2	12.50	421-711 Solar Energy	Not offered 2010		ABPL90153 Complex Building Energy Modelling	January	12.50	ABPL90086 Environmental Systems (PG)	Semester 2	12.50	Subject	Study Period Commencement:	Credit Points:	ENEN90014 Sustainable Buildings	September	12.50	421-682 Engineering Systems Management	Not offered 2010		421-711 Solar Energy	Not offered 2010	
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ABPL90120 Building Sustainability	September	12.50
ABPL90152 Sustainable Tropical Housing	October	12.50
ABPL90032 Resource Friendly Building Operations	Semester 1	12.50
702-874 Investigation Program A (PG)	Not offered 2010	12.50
ABPL90049 Environmental Design	Semester 1	12.50

Additional Electives

Other electives (that may be included with the advice of the stream coordinator) include:

Subject	Study Period Commencement:	Credit Points:
ENST90002 Social Impact Assessment and Evaluation	Semester 2	12.50
EVSC90015 Environmental Impact Assessment	Semester 1	12.50
ANTH90001 Heritage and Cultural Environments	Semester 2	12.50
DEVT90009 Understanding Development	Semester 1	12.50
NRMT90003 Social Research Methods	Semester 1	12.50
ECON90016 Environmental Economics and Strategy	Semester 1	12.50
MGMT90022 Managing Organisational Change	March	12.50
POPH90142 Epidemiology & Analytic Methods 1	March	12.50
EVSC90010 Environmental Risk Assessment	Semester 1	12.50
606-608 Restoration Ecology	Not offered 2010	12.50
MAST90007 Statistics for Research Workers	February	12.50
ABPL90016 Asset Management	Semester 1	12.50
ABPL90030 Project Evaluation and Management	September	12.50
LAWS70068 Environmental Law	September	12.50
ENST90006 Environmental Research Review	Semester 1, Semester 2	12.50
ENST90007 Environmental Research Topic	Semester 1, Semester 2	25
ENST90016 Environmental Research Project	Semester 1, Semester 2	50
ENST70001 Environmental Research Proj (long) MYE	Semester 1, Semester 2	50

Links to further information:

<http://www.environment.unimelb.edu.au>

Related Course(s):

Master of Environment
Master of Environment