

## ABPL90086 Environmental Systems (PG)

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| <b>Credit Points:</b>                    | 12.50  |
| <b>Level:</b>                            | 9 (Graduate/Postgraduate)  |
| <b>Dates &amp; Locations:</b>            | 2010, Parkville<br>This subject commences in the following study period/s:<br>Semester 2, Parkville - Taught on campus.  |
| <b>Time Commitment:</b>                  | Contact Hours: 36 hours: 1x 2 hours of lectures per week; 1 x1 hour of tutorials per week Total Time Commitment: 120 hours   |
| <b>Prerequisites:</b>                    | Admission to Melbourne School of Design graduate level program, or written permission from the subject coordinator.  |
| <b>Corequisites:</b>                     | None specified   |
| <b>Recommended Background Knowledge:</b> | None specified   |
| <b>Non Allowed Subjects:</b>             | 702-465 (ABPL40017) - Environmental Systems  |
| <b>Core Participation Requirements:</b>  | The University is dedicated to provide support to those with special requirements. Further details on the disability support scheme can be found at the Disability Liaison Unit website: <a href="http://www.services.unimelb.edu.au/disability/">http://www.services.unimelb.edu.au/disability/</a>   |
| <b>Coordinator:</b>                      | Dr Boon Ong  |
| <b>Contact:</b>                          | Environments and Design Student Centre<br>T: +61 3 8344 6417/9862<br>F: +61 3 8344 5532<br>Email: <a href="mailto:msd-courseadvice@unimelb.edu.au">msd-courseadvice@unimelb.edu.au</a>   |
| <b>Subject Overview:</b>                 | <p>This subject covers key elements of building services and sustainability. The services component of the subject (50%) includes:</p> <ul style="list-style-type: none"> <li># refrigeration, heating and air handling plant;</li> <li># air distribution;</li> <li># energy efficiency, and documentation of air-conditioning system designs;</li> <li># non-residential electrical, telecommunications, transportation and building management systems;</li> <li># special servicing conditions including hospitals, auditoria, industrial buildings, commercial kitchen planning, and district services.</li> </ul> <p>The sustainability component of the subject (50%) includes:</p> <ul style="list-style-type: none"> <li># design for daylighting, natural ventilation and mixed mode systems;</li> <li># displacement ventilation, evaporative cooling and radiant cooling systems;</li> <li># active solar heating and cooling systems;</li> <li># indoor air quality, environmental comfort and post-occupancy evaluation;</li> <li># principles of room acoustics and sound isolation.</li> </ul> |
| <b>Objectives:</b>                       | On completion of this subject students will have a working familiarity with both passive and active systems of environmental control used in commercial and institutional buildings.   |
| <b>Assessment:</b>                       | One two-hour examination (70%). Exercises (eg. written and drawn assignments, class presentations) equivalent to not more than 3000 words (30%). Students must demonstrate a high level of engagement with and/or critical analysis of the subject content to complete the subject at postgraduate level, and will be subject to assessment at postgraduate level.   |
| <b>Prescribed Texts:</b>                 | None specified   |

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| <b>Recommended Texts:</b>                     | Parlour, R. P. <i>Building services: a guide to integrated design &amp; engineering for architects</i> . Pymble, N.S.W: Integral Publishing, 2000.   |
| <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># application of calculation methods;</li> <li># correct use of technical terminology;</li> <li># relating to consultants.</li> </ul>   |
| <b>Links to further information:</b>          | <a href="http://www.abp.unimelb.edu.au/environments-and-design-students/melbourne-school-of-design-students.html">http://www.abp.unimelb.edu.au/environments-and-design-students/melbourne-school-of-design-students.html</a>  |
| <b>Related Course(s):</b>                     | Bachelor of Property and Construction<br>Bachelor of Property and Construction (Honours)<br>Master of Architecture<br>Master of Architecture<br>Master of Construction Management<br>Master of Construction Management<br>Master of Environment<br>Master of Environment<br>Master of Property<br>Master of Property<br>Master of Urban Planning<br>Postgraduate Certificate in Environment<br>Postgraduate Diploma in Environment |
| <b>Related Majors/Minors/Specialisations:</b> | Energy Efficiency Modelling and Implementation   |