

## CVEN90043 Sustainable Infrastructure Systems

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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 1, Parkville - Taught on campus.  |
| <b>Time Commitment:</b>                  | Contact Hours: 1 hour lecture and 2 hour tutorial per week. Total 32 hours Total Time Commitment: 120 hours for the semester   |
| <b>Prerequisites:</b>                    | None   |
| <b>Corequisites:</b>                     | None   |
| <b>Recommended Background Knowledge:</b> | None   |
| <b>Non Allowed Subjects:</b>             | None   |
| <b>Core Participation Requirements:</b>  | For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Students Experiencing Academic Disadvantage Policy, academic requirements for this subject are articulated in the Subject Description, Subject Objectives, Generic Skills and Assessment Requirements of this entry. 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 Teri Etchells   |
| <b>Contact:</b>                          | Melbourne School of Engineering<br>Ground Floor<br>Old Engineering Building #173<br>The University of Melbourne VIC 3010 AUSTRALIA<br>General telephone enquiries<br>+ 61 3 8344 6703<br>+ 61 3 8344 6507<br>Facsimiles<br>+ 61 3 9349 2182<br>+ 61 3 8344 7707<br>Email: <a href="mailto:eng-info@unimelb.edu.au">eng-info@unimelb.edu.au</a> ( <a href="mailto:eng-info@unimelb.edu.au">mailto:eng-info@unimelb.edu.au</a> )   |
| <b>Subject Overview:</b>                 | This subject provides an overview of a wide range of issues relating to the design and operation of infrastructure, with a particular focus on the environmental, economic and civic sustainability of the projects. Students will gain an understanding of the complexities of decision-making in this sector and the role of government and regulation, as well as practical skills in assessing the financial and environmental impacts. The lectures and tutorials will be structured around case studies of various infrastructure projects. Students are expected to actively contribute to case study discussions in tutorials.                     |
| <b>Objectives:</b>                       | At the end of this subject students should be able to <ul style="list-style-type: none"> <li># Discuss the sustainability of infrastructure with regard to environmental, economic and civic issues</li> <li># Utilise a range of analytical tools useful for assessing the environmental and financial sustainability of infrastructure</li> <li># Identify key issues in the design and operation across a broad range of infrastructure</li> <li># Explore issues of governance, ethics and competing stakeholder interests</li> </ul>  |
| <b>Assessment:</b>                       | One two-hour examination at the end of semester (40%)1000 word report due at the end of semester (20%)700 word essay due mid-semester (10%) Contribution to and participation in issues raised during tutorials and preparation throughout semester (30%)  |
| <b>Prescribed Texts:</b>                 | None   |

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| <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># Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development</li> <li># Ability to utilise a systems approach to complex problems and to design and operational performance</li> <li># Capacity for lifelong learning and professional development</li> <li># Understanding of professional and ethical responsibilities, and commitment to them</li> </ul>  |
| <b>Related Course(s):</b> | <p>           Bachelor of Engineering<br/>           Bachelor of Engineering (Civil) and Bachelor of Arts<br/>           Bachelor of Engineering (Civil) and Bachelor of Commerce<br/>           Bachelor of Engineering (Civil) and Bachelor of Laws<br/>           Bachelor of Engineering (Civil) and Bachelor of Science<br/>           Bachelor of Engineering (Environmental) and Bachelor of Laws<br/>           Master of Engineering Management<br/>           Master of Engineering Management<br/>           Master of Engineering Project Management<br/>           Master of Engineering Project Management<br/>           Master of Engineering Structures<br/>           Master of Engineering Structures<br/>           Master of Environmental Engineering<br/>           Master of Environmental Engineering<br/>           Master of Water Resource Management<br/>           Master of Water Resource Management         </p> |