

CVEN90043 Sustainable Infrastructure Engineering

Credit Points:	12.50
Level:	9 (Graduate/Postgraduate)
Dates & Locations:	This subject is not offered in 2013.
Time Commitment:	Contact Hours: 48 hours, comprising of two hours of lectures and two hours of workshops per week Total Time Commitment: 120 hours
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	<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>
Contact:	Professor Abbas Rajabifard abbas.r@unimelb.edu.au (mailto:abbas.r@unimelb.edu.au)
Subject Overview:	This subject provides an overview of a wide range of issues relating to the design and operation of infrastructure, with particular focus on the environmental, economic and civic sustainability of projects. Students will gain an understanding of the complexities of decision-making in this sector and the role of government and regulation, and the use of land and spatial information systems and the practical skills involved in assessing the financial and environmental impacts of projects. The lectures and tutorials are based on case studies of various urban and rural infrastructure projects. Students are expected to actively contribute to case study discussions in tutorials.
Objectives:	On completion of this subject students should be able to: <ul style="list-style-type: none"> # Discuss the sustainability of infrastructure with regard to environmental, economic and civic issues # Utilise a range of analytical tools useful for assessing the environmental and financial sustainability of infrastructure # Identify key issues in the design and operation across a broad range of infrastructure # Explore issues of governance, ethics and competing stakeholder interests
Assessment:	One 2 hour examination, end of semester (40%) One group major assignment report (Max 4000 words), due at the end of semester (20%) One 20 minute group presentation, due mid semester (10%) Contribution to and participation in issues raised during tutorials and preparation throughout semester (12%) One mid semester test of 30 minutes duration (18%) Students must pass the end of semester examination to pass the subject.
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.

Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Generic Skills:	<ul style="list-style-type: none"> # Understanding of social, cultural, global, and environmental responsibilities and the need to employ principles of sustainable development # Ability to utilise a systems approach to complex problems and to design and operational performance # Capacity for lifelong learning and professional development # Understanding of professional and ethical responsibilities, and commitment to them
Related Course(s):	Master of Engineering Management Master of Engineering Management Master of Engineering Project Management Master of Engineering Project Management Master of Engineering Structures Master of Engineering Structures Master of Environmental Engineering Master of Environmental Engineering Master of Philosophy - Engineering Ph.D.- Engineering Postgraduate Certificate in Engineering
Related Majors/Minors/ Specialisations:	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Environmental) Master of Engineering (Geomatics) Master of Engineering (Structural)