CVEN40011 Transport Systems

Credit Points:	12.50
Level:	4 (Undergraduate)
Dates & Locations:	2010, Parkville This subject commences in the following study period/s: Semester 2, Parkville - Taught on campus.
Time Commitment:	Contact Hours: 2 hours lectures/week. 16 hours workshops/semester. Total 40 hours Total Time Commitment: 120 hours for the semester
Prerequisites:	None
Corequisites:	None
Recommended Background Knowledge:	None
Non Allowed Subjects:	None
Core Participation Requirements:	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: http://www.services.unimelb.edu.au/disability/
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Subject Overview:	In this subject students should learn the application of engineering principles to a range of transport systems and modes including prediction of demand and systems available to meet this demand for both motorised and non-motorised traffic; the theory and practice of transportation planning; and an ability to apply this knowledge to design and manage transport systems. Topics covered include # Traffic management # Traffic simulation modelling # Travel demand management # Non-motorised transport # Road safety # Healthy transport # Environmental impacts of traffic # Geographic information systems # Travel surveys # Travel behaviour modelling # Intelligent transport systems # City logistics

	# Public transport system design
Objectives:	At the end of this subject students should be able to # Utilise technologies such as accelerometers and global position system to monitor and estimate the amount of physical activity gained from walking and cycling and use this information to develop change plans. # Recommend cost effective remedial treatments for crash sites based on analysis of road crash patterns from Vicroads CrashStats database. # Undertake a road safety audit for section of roadway # Design and test a transport survey to provide information for a specific transport study # Produce a concept design for a public transport service based on estimated demand levels and specified operating levels # Design an intelligent transport system based the information needs of motorists # Use Geographic Information Systems (GIS) to produce maps of transport of individuals in Melbourne # Use behavioural choice modelling methods to determine how to increase the patronage of a public transport service
Assessment:	2 hour end of semester examination (50%)2000 word assignment due mid semester (25%)2000 word assignment due late semester (25%)
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:	# Ability to undertake problem identification, formulation, and solution # 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
Related Course(s):	Bachelor of Engineering Master of Urban Planning