CVEN90048 Transport Systems

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 practical per week Total Time Commitment: 120 hours
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 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. 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
Contact:	Dr Chris Hale **hale.c@unimelb.edu.au (mailto:hale.c@unimelb.edu.au)**
Subject Overview:	In this subject students will develop job-readiness for the application of quantitative, policy, and design principles to a range of transport systems, modes, and planning or project decision scenarios. Key perspectives include: the theory and practice of transport planning; prediction of demand - and matching of demand and capacity via appropriate systems (for both motorised and non-motorised movements); and an understanding that any body of applied knowledge is ultimately actioned in *project-based* scenarios. Topics covered include: # Transport strategy # The role of transport in the evolution and development of cities # Healthy cities via healthy transport # Surveys and survey methods # Non-motorised transport options # Travel demand management # Environmental impacts of traffic # Road safety # Carriageway design # Road traffic management # Travel behaviour modelling # City logistics # Public transport system design # Transit project appraisal and basic economics # Transit oriented development, station design, and station access planning/infrastructure

	# GIS applications and simulation for public transport planning
Objectives:	At the end of this subject, and during the program, students should be able to demonstrate ongoing improvement in the following core workplace-related competencies: # Organising themselves into effective working groups that replicate real-world transport project environments # Managing personal time and workload efficiently, to deliver needed outputs in a timely manner (as per real-world transport project environment) # Effective, professional-level verbal communication and discussion around current real-world transport planning issues and concepts # Professional-level written communication skills on transport themes # An ability for accurate self-appraisal and self-improvement regarding; personal skill levels, technical knowledge, work-related effort, and inter-personal competencies At the end of the subject, students should be able to demonstrate job-readiness for team-based work in the following technical areas: # Transport strategy development, and the incorporation of strategic transport contexts into project work # Effective management of public health-related questions in transport planning # Infrastructure planning and design for non-motorised transport (walking and cycling) # Travel Demand Management (TDM) initiatives # Perceiving and assessing (broadly) the environmental impacts of transport # Undertaking a road safety audit with reference to established guidelines and regulations # Carriageway design # Traffic management # Traffic behaviour modelling # Logistics programs and modelling # Public transport planning and basic line capacity analysis # Public transport project economic appraisal and business case development # Transit oriented development # Development of station design principles # Station access planning and infrastructure appraisal # IT-based transport planning tasks
Assessment:	One 2000 word individual assignment, due mid-semester (25%) Group assignment, with individual input clearly identified: (2000 words), due late semester (25%) One 2-hour examination, held end of semester (50%)
Prescribed Texts:	None
Recommended 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 systems approach to complex problems and to design and operational performance # Capacity for a lifelong learning and professional development
Related Course(s):	Bachelor of Engineering (Civil Engineering) Master of Philosophy - Engineering Ph.D.- Engineering

Related Majors/Minors/ Specialisations:	B-ENG Civil Engineering stream Master of Engineering (Civil) Master of Engineering (Geomatics)