360-787 Logistics Optimisation Ntwrk Restructure

Credit Points:	12.500
Level:	Graduate/Postgraduate
Dates & Locations:	2008, This subject commences in the following study period/s: Semester 1, - Taught on campus. Semester 2, - Taught on campus.
Time Commitment:	Contact Hours: 24 hours of lectures/seminars/workshops (3 x 8hr) Total Time Commitment: Not available
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
Subject Overview:	This subject examines the use of basic optimization techniques as used in logistic process planning and logistic network restructuring. It examines different strategies for logistic network redesign including the use of multi-modal choices, warehouse and distribution centre re-location, minimizing vehicle resources, and calculation of the best insourcing versus outsourcing mix. The assessment of the effectiveness of existing logistics network performance through KPIs is also examined. Topics covered include: Network resource optimisation and examining performance KPIs. Software evaluation considerations. Vehicle routing and scheduling. Network restructuring and engineering systems management tools. Multi-modal potential for a logistics network. Decision choices for depot or warehouse placement. Integration of several networks into a single network.
Assessment:	One assignment of 4,000 words (100%) - A case study analysis requiring critical analysis would be drawn from experience or the workplace or re-assessment of the literature. A case study may be assigned by the course co-ordinator if participants do not want to venture their own company details
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:	Students who successfully complete this subject will be able to: Prepare a technical brief and expression of interest for the provision of optimisation procedures for a logistics related service. Understand the approaches and methods used in logistic optimisation.

	Apply analytical procedures for determining the impacts on constraints of time windows, depot sizes and variable vehicle access. Develop guidelines for determining the optimal mix of insourcing and outsourcing of logistics services. Implement procedures for evaluating logistics optimisation software. Critically examine the potential for inter-modal choices in the delivery of services to customers. Assess options for network restructuring, relocation of major distribution centres, optimal placement for centres and their size. Define a range of appropriate KPI s for logistic network performance.
Related Course(s):	Professional Certificate in Logistic Optimisation Professional Certificate in e-Logistics