

Background and Aims

This unit provides an introduction to contemporary analytical methods and issues in transport economics, with particular relevance to transport operations, infrastructure investment and policy decision-making. Fundamental concepts and methods relevant to demand, cost, pricing and investment analysis and decision-making are covered. The important role of regulations in the operations of markets and transport operations is considered as are the forms and impacts of different types of government intervention, deregulation and privatisation in transport markets and operations. The unit emphasizes the application of transport economics principles to contemporary policy issues in transport.

After completing this unit participants will have knowledge and understanding of:

- factors influencing transport and travel demand, empirical demand estimation and analysis, and application to travel demand modelling
- cost concepts and their measurement, and application to decision-making for transport operations and investment
- market structure, conduct and performance analysis of transport markets, including supply and demand analysis of competitive markets, and social welfare comparisons of competition and monopoly
- pricing transport services, including profit maximisation and social welfare maximisation strategies
- role of governments in influencing the institutional environment within which transport operations take place, and the impact of different types of government intervention and deregulation on transport markets and operations
- cost benefit analysis basic principles (including consumers' surplus) and their application to transport decision-making.

Details of the structure of the unit are provided over the page

Offered through The Institute of Transport Studies, Department of Civil Engineering
Faculty of Engineering, Monash University

ABN 12 377 614 012 CRICOS provider number 00008C

Enrolment Options

Enrol as a single unit or as part of either the Graduate Certificate in Transport and Traffic, Postgraduate Diploma in Transport and Traffic, or Masters in Transport and Traffic.

Off-Campus Study Mode

This unit is offered by Off-Campus (distance education) and there is no requirement for participants to attend lectures. Study guides, comprising a comprehensive set of course notes, are sent following enrolment. Further support is provided through a unit web site and via e-mail. The lecturer is available to answer questions and to provide assistance as necessary throughout the semester. Assistance can be arranged by email, facsimile, mail, telephone or through the discussion groups on the unit web site. Assessment comprises two assignments and an examination (worldwide exam venues are available).

Unit Co-ordinator



John Clements John is the Program Director, Transport Management Course in Bus and Coach Operations, Institute of Transport Studies (Monash). He has extensive teaching, consulting and education and industry training program

development and management experience. He is a Fellow of the Chartered Institute of Transport.

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Structure

The unit is structured around 7 topics which are generally associated with one week of study

Topic	<i>After completing this topic, participants will:</i>
1. Introduction to Transport Economics	<ul style="list-style-type: none"> comprehend the broad field and methodological approach of transport economics appreciate key strategic decision-making issues in transport economics and some emerging challenges
2. Transport Demand Analysis	<ul style="list-style-type: none"> understand the factors influencing transport and travel demand and be able to interpret information obtained from commonly derived demand functions, including elasticities understand the basic approach to commonly adopted travel demand modelling techniques, including an appreciation of appropriate situations and data requirements for their application
3. Cost Analysis	<ul style="list-style-type: none"> understand, calculate and interpret basic cost concepts and data, such as average and marginal costs, opportunity costs, avoidable and shared costs understand the process for identifying and allocating costs relevant to provision of specific transport services, including cost identification requirements for pricing, performance assessment and evaluation of specific changes in service levels understand and interpret empirical data relevant to industry level costs and productivity (including research results for studies of economies of scale and scope) and appreciate the implications for competition and government regulation
4. Profitability and Market Structure Analysis	<ul style="list-style-type: none"> calculate revenue constructs and understand the causes of revenue variability compare cost and revenue data to determine maximum profit outcomes for a business, using both 'total' and 'marginal' analysis techniques, including the use of the break-even analysis technique use market structure techniques, and an understanding of efficiency requirements, to analyse and compare the likely performance of firms in competitive and monopolistic market structures
5. Pricing Transport Services	<ul style="list-style-type: none"> distinguish between profit maximisation, social welfare maximisation, and constrained social welfare maximisation objectives identify pricing strategies commonly adopted by private sector businesses, including price discrimination, and use marginal analysis techniques to analyse the impact of such strategies on output, competitive pricing and profits understand and analyse appropriate pricing approaches required to achieve social welfare maximisation, and constrained social welfare maximisation, under specified market demand and supply conditions distinguish between efficiency objectives and other broader social objectives of pricing policy use pricing 'rules' to analyse and recommend on the application of user charges in transport, especially to road use pricing
6. Government Intervention in Transport	<ul style="list-style-type: none"> recognise types of market failure and government intervention responses and policies evaluate policy instruments used to achieve various objectives of government intervention understand the economic theories, reasoning and research evidence underlying the trend to deregulation and privatisation of transport recognise and evaluate various approaches to outsourcing, competitive tendering and franchising
7. Benefit-Cost Analysis	<ul style="list-style-type: none"> understand the broad objectives of BCA and summary evaluation measures understand and apply key measurement concepts, such as consumers' surplus; shadow pricing, social discount rate identify the direct and indirect benefits and costs of transport projects and measurement issues use time value discounting techniques to measure the value of benefits and costs of specified projects discuss the strengths and weaknesses of CBA and possible alternative evaluation approaches