

MAKERERE UNIVERSITY BUSINESS SCHOOL
FACULTY OF ECONOMICS, ENERGY AND MANAGEMENT SCIENCE (FEEMS)
DEPARTMENT OF APPLIED ECONOMICS · SEMESTER I, ACADEMIC YEAR 2026/2027

Programme	Bachelor of Transport and Logistics Management
Course	Transport Economics and Finance
Course code	FIN 2107
Year / Semester	Year II, Semester I
Credit units	4
Contact hours	4 per week over 12 teaching weeks — 2 hours lecture, 2 hours applied workshop

Facilitators

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1. Course description

Transport absorbs a large share of household spending, business operating cost and public investment in Uganda, yet decisions in the sector are frequently taken without an economic case attached to them, and economic cases are frequently made without asking who will pay. This course closes both gaps, in that order.

It runs in two halves of six weeks. The economics half establishes how people and firms choose transport, what it costs to supply, how transport markets behave under competition and regulation, and what costs transport imposes on people outside the transaction. The finance half takes the student from that economic case to a funded decision: appraising a project, discounting its cash flows, financing a fleet, and structuring an infrastructure asset as a concession or public–private partnership. The second half depends on the first, a student cannot appraise what they cannot cost, and cannot allocate risk in a toll concession without understanding demand elasticity.

Analysis throughout is applied to Ugandan and East African road, rail, water and air transport, boda-boda and taxi operations, freight corridors and urban mobility.

2. Course competences

A student who passes this course can do the following unaided, to a standard an employer would accept. The competences are grouped to match the two halves of the course.

#	Competence	Performance standard
ECONOMICS COMPETENCES — Weeks 1–6		
C1	Diagnose a transport problem in economic terms	Given a transport situation, a congested corridor, a loss-making route, a fare dispute, identify whether the underlying problem is one of demand, cost, market structure or externality, and state what evidence would confirm the diagnosis.
C2	Analyse demand and estimate user response	Compute and interpret price, income and cross-price elasticities from published or collected data, and predict how passengers or shippers respond to a fare, fuel or tax change, including who bears the burden.

#	Competence	Performance standard
C3	Build and interpret a transport cost structure	Separate fixed from variable and common from attributable costs for a transport operation; compute unit cost per passenger-kilometre or tonne-kilometre; identify the break-even load factor.
C4	Set and defend a price, and judge a regulatory instrument	Apply marginal-cost, peak-load and discriminatory pricing to a transport service and defend the price against efficiency, equity and financial-sustainability objections; evaluate a named regulatory or externality instrument for feasibility in Uganda.
FINANCE COMPETENCES — Weeks 7–12		
C5	Appraise a transport investment	Carry out a cost–benefit appraisal including time savings, vehicle operating cost savings, accident and environmental effects; compute NPV, IRR and payback; test the result against the assumptions that drive it.
C6	Finance a transport operation	Read the financial statements of a transport firm, compute the operating and financial ratios that matter to a lender, and choose between purchase, loan and lease for a fleet acquisition.
C7	Structure the financing of a transport asset	Identify realistic funding and financing sources for a transport asset in Uganda, compare public provision with a concession or PPP, and allocate the principal risks between the parties.
C8	Communicate an economic and financial recommendation	Produce a written brief and an oral defence that a ministry official, an operator or a financier could act on, without unexplained technical language.

4. Detailed Course outline

Wk	Content	Facilitator
PART I — THE ECONOMICS OF TRANSPORT (Weeks 1–6)		
1	Transport as a derived demand. The Ugandan and East African transport system across road, rail, water, air and pipeline. Who does what after the 2024 rationalisation of road agencies. Efficiency and equity in transport allocation; consumer and producer surplus; marginal analysis.	Dr. Atukunda
2	Demand for transport: determinants, derived demand, mode choice. Value of travel time savings and why it differs between a trader and a commuter.	Dr. Atukunda
3	Own-price, cross-price and income elasticity; arc and point measures; short-run versus long-run response. Incidence and pass-through: who bears a fuel levy, a road user charge or an axle-load fine.	Dr. Atukunda
4	Transport cost structure: fixed and variable, short and long run, common and joint costs, and why cost allocation in transport is genuinely hard. Unit cost and productivity: cost per passenger-kilometre and tonne-kilometre, load factor, vehicle utilisation, break-even analysis. Economies of scale, scope and density in transport.	Ms. Shamim Kirabo
5	Market structure and supply: competition, contestable and non-contestable markets, natural monopoly. Structure of Ugandan transport markets — route associations, stage control, freight brokerage. Pricing: marginal-cost, average-cost, peak-load and discriminatory pricing; fares and subsidy.	Ms. Shamim Kirabo
6	External costs of transport: congestion, road crashes, air pollution, carbon. Valuation approaches and their limits. Instruments compared: taxes, charges, standards, direct regulation. Transport regulation in Uganda — licensing, route allocation, fare regulation, axle-load and safety enforcement, paratransit reform.	Ms. Shamim Kirabo
PART II — THE FINANCE OF TRANSPORT (Weeks 7–12)		
7	From the economic case to the financial case. Funding versus financing — who ultimately pays versus who advances the money. Sources of transport finance in Uganda: budget allocation, road maintenance funding, user charges and	Mr. Karim Mwesigwa

Wk	Content	Facilitator
	tolls, development finance, concessional and commercial borrowing, private equity.	
8	Cost–benefit analysis for transport projects: identifying and valuing time savings, vehicle operating cost savings, accident and environmental effects; the counterfactual; the appraisal period; distributional weighting.	Mr. Karim Mwesigwa
9	Discounting and investment criteria: present value, NPV, IRR, benefit–cost ratio, payback. Choice of discount rate and why it decides the answer. Sensitivity analysis, switching values and risk.	Mr. Karim Mwesigwa
10	Financing the transport operator: reading a transport firm’s financial statements; operating ratio, working capital and cash cycle; the ratios a lender examines. Fleet acquisition — outright purchase, asset finance, and leasing compared.	Mr. Karim Mwesigwa
11	Infrastructure finance and public–private partnerships: PPP and concession structures, the bankability question, demand risk versus availability payments, tolling, value for money and the public sector comparator. Ugandan and regional experience with expressway and rail concessions.	Mr. Karim Mwesigwa
12	Integration: from a transport problem to a diagnosis, an appraisal, a financing structure and a recommendation. Course synthesis and revision.	Mr. Karim Mwesigwa

5. Assessment

Two assessed tasks fall in the economics half and one, the largest, in the finance half. Each is built inside the weekly workshop rather than set as detached homework.

Coursework 30% / examination 70%.

6. Reading list

Core texts — both halves

- Button, K. (2010), *Transport Economics*, 3rd edition, Cheltenham: Edward Elgar.
- Cowie, J. (2010), *The Economics of Transport: A Theoretical and Applied Perspective*, London: Routledge.
- Small, K.A. and Verhoef, E.T. (2007), *The Economics of Urban Transportation*, 2nd edition, London: Routledge.
- Blauwens, G., De Baere, P. and Van de Voorde, E. (2012), *Transport Economics*, 5th edition, Antwerp: Uitgeverij De Boeck.

Part I — economics (Weeks 1–6)

- Oum, T.H., Waters, W.G. II and Yong, J-S. (1992), “Concepts of price elasticities of transport demand and recent empirical estimates”, *Journal of Transport Economics and Policy* 26(2), 139–154.
- Graham, D.J. and Glaister, S. (2002), “The demand for automobile fuel: a survey of elasticities”, *Journal of Transport Economics and Policy* 36, 1–25.
- Braeutigam, R.R. (1999), “Learning about transport costs”, in Gomez-Ibanez, J.A., Tye, W.B. and Winston, C. (eds), *Essays in Transportation Economics and Policy*, Washington DC: Brookings Institution, 57–98.
- Winston, C. (1991), “Efficient transportation infrastructure policy”, *Journal of Economic Perspectives* 5(1), 113–127.
- Victoria Transport Policy Institute, “Transportation elasticities”, TDM Encyclopedia (online).

Part II — finance (Weeks 7–12)

- Yescombe, E.R. and Farquharson, E. (2018), *Public–Private Partnerships for Infrastructure: Principles of Policy and Finance*, 2nd edition, Oxford: Butterworth-Heinemann.
- World Bank, Asian Development Bank and Inter-American Development Bank, *Public–Private Partnerships Reference Guide* (latest edition, free online).
- Gomez-Ibanez, J.A. (2003), *Regulating Infrastructure: Monopoly, Contracts and Discretion*, Cambridge, Mass.: Harvard University Press.

- Quinet, E. and Vickerman, R. (2004), Principles of Transport Economics, Cheltenham: Edward Elgar — chapters on investment and appraisal.

African and Ugandan evidence

- Gwilliam, K. (2011), Africa's Transport Infrastructure: Mainstreaming Maintenance and Management, Washington DC: World Bank.
- Kumar, A. and Barrett, F. (2008), Stuck in Traffic: Urban Transport in Africa, Washington DC: World Bank / SSATP.
- Behrens, R., McCormick, D. and Mfinanga, D. (eds) (2016), Paratransit in African Cities: Operations, Regulation and Reform, London: Routledge.
- Africa Transport Policy Programme (SSATP), country and corridor working papers (online).
- Republic of Uganda, Ministry of Works and Transport — National Transport Master Plan and annual sector performance reports.
- Uganda Bureau of Statistics, Statistical Abstract (latest edition) — transport and communication tables.

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Team Leader / Internal Examiner

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Head of Department