DEPARTMENT OF LOGISTICS

FACULTY OF ECONOMIC AND MANAGEMENT SCIENCES

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Study in the field of **ORT ECONOMICS**

Interested in TRANSPORT?

- Interested in how people and goods move from point A to point B?
- Wondering how the airlines determine the price of your airline ticket?
- Thinking why there is never parking in Stellenbosch?
- Wondering how Takealot can deliver your online purchase the same day? .
- Will you need a driver's licence in 10 years time due to self-driving cars?
- Wondering about the journey your "out of season" avo went through to get to South Africa?

Undergraduate BCom (Economic Science) Study Focal area: Transport Economics

Introduction to Transport Economics and Logistics Systems 144: Year Introduction to the unique purpose of the transport system and the economic significance thereof.

Transport Economics 214 & 244

To understand the role and function of transport as well as the economic, physical and service Year characteristics of different transport modes (rail, road, sea, air, pipeline etc.) Introduction to land and urban economics. Complimentary subjects: Economics 214 & 244, Logistics Management 214 & 244, Quantitative Management 214 & 244

Transport Economics 318 & 348

Year

Techniques to determine the economic and financial feasibility of transport projects. Modal cost and market structures for maritime, rail, air and pipeline economics. Focus on international trade and logistics. Complimentary subjects: Economics 318 & 348, Logistics Management 314, 324, 344 & 354, Quantitative Management 318 & 348, Project Management 314

Postgraduate degrees: Focus **BComHons & MCom** Transport Economics

Choice of three BCom Honours focus areas:

1. Pure Transport Economics focus (Applied transport economics and theory)

2. Transport and Logistics focus (Combining transport and logistics modules)

3. Transport Management and Modes (for those interested in the various modes including road, rail, shipping, air, urban and new technology).

MCom Transport Economics at Stellenbosch University OR Joint masters between Stellenbosch and Antwerp University or Rotterdam University, Netherlands.

Career Planner, Business owner / Entrepreneur

Consultant (Economist / Planner): Civil Engineering firms, accounting firms (special projects), maritime and air companies, private consultant (self-employed)

Government / Banks (Economist / Planner): Department of Transport, Municipalities, World Bank, Development Bank of SA Researcher / Lecturer: Universities (Local / abroad), CSIR

Other exciting alternative industries:

International

Opportunities

- Online Retail (Amazon / Takealot) Self-driving cars & electric vehicles (Uber / Google / Tesla)
- Uber (Planning and scheduling of on-demand transport services) New transport modes and technologies (Drones / Hyperloop)

Potential employers







Talk to us

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WEB: Department of Logistics www.sun.ac.za/english/faculty/economy/logistics/



Study in the field of **LOGISTICS MANAGEMENT**

LOGISTICS MANAGEMENT is about...

- getting a product to the shelf or salesroom when you want to buy it;
- making sure that the necessary materials are available when a service has to be provided;
- sourcing the raw materials required to manufacture a product from local and international suppliers;
- transporting and warehousing the product throughout the world;
- planning and ensuring that all of this happens in a way that makes the customers happy and generates a profit for the business providing the product or service.

Study Undergraduate – BCom (Management Sciences Focal area: Logistics Managemen

Introduction to Transport Economics and Logistics Systems 144 Year Introduction to the unique purpose of the transport system and the economic significance thereof.

Logistics Management 214 & 244

The main functional areas of Logistics Management are covered, including Demand Management, OrderYearManagement & Customer Service, Inventory in the Supply Chain, Supply Management, Sourcing &
Procurement, and Transport & Distribution. Complimentary subjects: Quantitative Management 214 & 244,
Transport Economics 214 & 244, Financial or Marketing Management 214 & 244

Logistics Management 314, 324, 344 & 354

Year The focus shifts to the more integrative elements of supply chain management (including Supply Chain Strategy, Network Analysis & Design, Performance Measurement, and Supply Chain Technology), as well as Logistics Analysis and Logistics Research. *Complimentary subjects: Project Management 314, Transport Economics or Marketing Management*

Focus Postgraduate degrees: BComHons & MCom (Logistics Management)

The **BComHons** degree will provide an opportunity to:

- deepen knowledge in the field of Logistics Management;
- apply theoretical learning to business case projects with real companies; and

International Opportunities

• prepare yourself for the workplace through the development of soft skills such as presentation skills, report writing, problem solving skills, and career management.

The **MCom** degree is research orientated and entails the completion of a thesis under the guidance of a lecturer. Projects are mostly undertaken in a business environment. Opportunities exist for exchange with various overseas universities, mainly situated in Europe.

Career Business Analyst, Consultant, Logistics , Transport / Supply Chain Manager

Positions held by some of our former students: Sourcing Analyst, Export Coordinator, Demand Planner, Contract Manager, Supply & Logistics Manager, Project Operations Manager, Operations Director

Industries in which our former students have been employed: Transport & Logistics, Retail (traditional and online), FMCG, IT & Software, Pharmaceutical, Beverage, Agriculture, Automotive, Mining, Professional Services, Humanitarian Aid



Study in the field of **ATIONS RESEARCH**

Interested in GOOD DECISION MAKING?

- Enjoy Mathematics, but are looking for practical applications thereof?
- Ever wondered, while standing in a long queue, if there isn't a better way?
- Wondering if food waste can't be reduced by changing inventory levels?
- Thinking about an optimal schedule for Super Rugby?
- Wondering how you could improve aspects of a business by looking at the data and numbers?
- Thinking about the best composition of your investment portfolio?

<u>Study</u>

Undergraduate BCom (Mathematical Science) or BSc (Mathematical Science), Focal area: Operations Research

Operations Research 214 & 244

Techniques to optimise decisions in networks, for example the shortest route through a road network, the number of Year flights on each route for an airline (network flow), the design of a water pipe infrastructure for a new suburb. Mathematical modelling of systems via linear programming for better decision making.

Complimentary subjects: Mathematics 214 & 244, Mathematical Statistics 214, 245 & 246, Computer Science 214 & 244, or Applied Mathematics 214 & 244 (if BSc)

Operations Research 314, 326, 344 & 354

Mathematical modelling of the more complex integer type systems, for example optimal scheduling of sport tournaments, or nonlinear type systems, for example finding optimal investment portfolios, as well as preference modelling. Some additional techniques such as decision analysis for improved decision making, inventory control to 3 Year determine the right amount and types of inventory a retailer should keep to maximise their sales, forecasting to help management better prepare for what might happen, queuing theory to improve long waiting times in queues, etc.

Complimentary subjects: Financial Mathematics 378, Mathematical Statistics 312, 316, 344, 354 & 364, Computer Science 314, 315, 334, 344, 354 or 364, Project Management 314, or Applied Mathematics 314, 324, 354 & 364

Focus Postgraduate degrees: BComHons & MCom Operations Research / BSc Hons & MSc Operations Research



Choice between BCom and BSc:

1. BCom: will typically take economics and business management as additional subjects for a scientific business career.

2. BSc: will typically take computer science and physics as additional subjects for a scientific research and development career.

Career Consultant, analyst, researcher

Business intelligence, consulting, advanced analytics: Business Modelling Associates, McKinsey & Company, PBT Group, OpSI, Pivot Sciences, Xtranda, Spatial Edge.

Retail: Takealot, PEP, Shoprite, Pick a Pay

Banks: Capitec Bank, Rand Merchant Bank, First National Bank, Commonwealth Bank

Prof. Stephan Visagie

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Researcher / lecturer: Universities (local / abroad), CSIR

Other exciting alternative industries: PIC Solutions, WiGroup, Broadreach, Sasol, RCS Group, DXC Technology, f(x) Software Development



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