

**UNIVERSITY OF PORT HARCOURT
FACULTY OF SOCIAL SCIENCES**



**CENTRE FOR LOGISTICS AND
TRANSPORT STUDIES (CELTRAS)**

BROCHURE

2022

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University of Port Harcourt

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Centre for Logistics and Transportation Studies

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Preamble

The University of Port Harcourt was founded among other things “*to contribute to national development, self-reliance and unity through the advancement and propagation of knowledge, and to humanity*”. This University has been achieving this not only through the conventional Faculties and Departments but through specialized Centres and Institutes. As is the case in many other universities all over the world, specialized Centres and / or Institutes focus specifically on aspects of socio-economic phenomena which gives the university concerned an advantage in promoting the existential realities of its immediate and wider environment. In addition to the academic and practical objectives of such Centres / Institutes, they have the added value of generating enormous funds for the University. It is against this background that the University of Port Harcourt through its Department of Geography and Environmental Management, Faculty of Social Sciences established the *Centre for Logistics and Transport Studies (CELTRAS)*.

The Philosophy of the Programme

The *Centre for Logistics and Transport Studies* will offer that desire to improve on the general absence of proper planning, coordination and efficient management of and logistics activities in both public and private sectors of the economy by preparing and training qualified transport and logistics professionals.

The different areas of specialization reflect and emphasize the dynamic nature of the programmes while allowing for the flexibility of the graduates to move from one transport/logistics-oriented job to another.

Vision

CELTRAS envisages the professionalization of the logistics and transport sector of the Nigerian economy such that in the not too distant future the transport and logistics sectors of the Nigeria economy will be managed by well trained and better qualified persons.

Mission Statement

The mission of CELTRAS is to produce qualified professionals in transport planning and management as well as logistics/supply chain management as well as in, for the Nigerian economy in particular and Africa in general. The idea is to provide adequate knowledge and practical skills for understanding and solving transportation and logistics and supply chain problems in Nigeria as well as generate international support in funding for intellectual exchanges through conveyances, seminars and publications.

Objectives

The objectives of CELTRAS include to:

- Encourage the study of the science and art of transport and logistics and supply chain management,
- Provide educational programmes through research and examination leading to postgraduate degrees in transport/logistics and supply chain management,

- Provide an opportunity for in-service training for staff of logistics and transport and related institutions and organizations,
- Assist in the development and improvement of logistics and transport sector through research.
- Provide students with solid intellectual, theoretical, methodological foundations and skills to work competently in varied logistics and transport planning and management positions in the public and private sectors.

PROGRAMMES

The academic programmes of the Centre include:

- Postgraduate Diploma. [PGD]
- Master of Science [MSc]
- Doctor of Philosophy [Ph.D]

POSTGRADUATE DIPLOMA [PGD]

Admission Requirements

- a. A minimum of a third class Honours Degree in any academic discipline from the University of Port Harcourt or any other recognized University
- b. A HND or its equivalent with at least an Upper Credit;
- c. Holders of recognized professional qualification in logistics/transport with at least an Upper Credit e.g. Chartered Institute of Logistics and Transport [CILT]; Institute of Transport Engineers; Chartered Institute of Transport Administration, [CIOTA] etc with at least 5 years working experience in a transport or related organization.
- d. Candidate must have completed the National Youth Service where applicable

Duration of the Programme

The programmes shall be on Full/Part Time basis.

- The Full-Time PGD run for a minimum of 12 calendar months and a maximum of 24 calendar months.

- Part-Time shall run for a minimum of 24 calendar months and a maximum of 36 calendar months.

Graduation Requirements

To obtain a degree in PGD in Transport/Logistics Management candidate must have passed ALL 36 course units including research Project.

Course Organization

The *PGD in Transport and Logistics* programme requires a minimum of 36 credit units made up as follows:

- | | |
|-------------------------------------|----------|
| ● Ten courses (3 credit units each) | 30 units |
| ● Project | 6 units |
| ● Total | 36 units |

All courses must be taken and passed as well as the Project.

Pass Mark

To pass a course the mark must be 50% and above.

Course Code and Numbering System

The course code for the PGD programme is LAT and the numbering for the courses is between 701 & 798. Research Project is numbered: 799

Course Description

Code	No,	Description	Unit	Status
LAT	701	Transport Geography	3	C
LAT	702	Transport Economics	3	C
LAT	703	Fundamentals of Logistics & Supply Chain Management	3	C
LAT	704	Urban and Rural Transport	3	C
LAT	705	Research and Quantitative Methods	3	C
LAT	706	Law of Business and Carriage	3	C
LAT	707	Purchasing and material management	3	C
LAT	708	Information systems in logistics and transport and ITS	3	C
LAT	709	Transport/Logistics Safety & Security	3	C
LAT	710	Introduction to Transport Planning	3	C
LAT	799	Project	6	C
		Total	36	

All 36 course units must be taken in the 12 months for full-time students.

The modules may not be taught in the serial order listed.

Course Content/Description

Module 1 [3 Weekends]

LA T 701: Transport Geography

History of transport development; management of Technology in transport; modal characteristics; comparative advantages and disadvantages, infrastructure/network; etc. Transport theories, concepts and models: the Gravity Model, the Spatial Interaction Model etc. models of Network evolution and development, theories of mode choice, theories of competition in transport, transport and development, etc. Transport flows, trip generation, attraction and distribution, modal split and competition. Transport data. Pedestrianisation. public transport, urban and rural transport; Technical aspects of transport and

world standards.. Energy and Transport. Modal systems and the Environment

Module 2 [3 Weekends]

LA T 702: Transport Economics and Management

Characteristics and scope of transport economics; analysis of demand; analysis of supply; models of passenger traffic; pricing policies in transport; investment; the structure of transport costs and the location of economic activity; transport- cost minimization models, government transport policy - scope, rationale and effects; transport subsidies 1 fares and charges; demand and supply; economics of scale; cost/benefit analysis. Transport needs and accessibility, politics and transport and economic planning.

Module 4 [3 Weekends]

LAT 703: Fundamentals of Logistics and Supply Chain Management

Definition of logistics management; Development of logistics; Systems approach/integration; The role of logistics in the economy; The role of logistics in the

organization; Total cost concept; Channels of distribution; Why do channels of distribution develop; Structure and operations of channels of distribution; Logistics and supply chain management for logistics activities; The relationship of logistics activities to logistics costs; Issues in logistics.

Module 3 [3 Weekends]

LA T 704: Urban Transport

Introduction; Classification of transport operation: mode of operation; principles; Categories of transport operation: Passenger transport, Freight transport and their types; Determinants of passenger transport operation; Quality of service measures; Costs in transport operation. Vehicle maintenance; Vehicle replacement; Transport integration. Inter-modalism and modern logistics. Transport coordination. Challenges of public transport Operations and management in Nigeria

Module 5 [3 Weekends]

LAT 705: Research and Quantitative Methods in Transport & Logistics

Research project writing: determination of the research problem, choosing a topic, development of central idea and research questions, literature review. Types of transport data: origin destination survey, trip purpose and accident survey. Instruments of data collection: questionnaire, interview, and observation. Sampling. Application of statistical / mathematical concepts in transport planning and supply chain management. Parametric and non- parametric tests, regression and correlation analysis and other data analytical techniques. Result interpretation. Referencing. Writing an abstract.

Module 6 (3 Weekends)

LAT 706: Insurance and Law of Business and Carriage

Law of business and carriage; contracts agency and transport liability. Liability for loss and damages of freight/passenger regarding sea, air and land-based transport. Various Rules and Conventions in air and sea transport Acts/decrees on carriage of

fright/passenger. Carriage of animals and dangerous goods. Special considerations affecting the use of containers. Legal basis of statutory transport organizations and statutory obligations of transport undertakings. Principles of insurance in transport industry; Air, land and marine insurance. Insurance law and practice, Cargo practice, Oil rigs insurance, protection and indemnity (P& I) cover and pipeline insurance.

Module 7 [3 Weekends]

LA T 707: Purchasing and Material Management

The role of purchasing in supply chain purchasing activities, purchasing research and planning; purchasing cost management; E-procurement-paperless purchasing. Nature and importance of warehousing. Types of warehousing; warehousing; operations, warehouse productivity, financial dimensions. Basic inventory concepts and management; Inventory costs; poor inventory management; improving inventory management; Case studies. Scope of materials management; forecasting; Total Quality Management t[TQM];

materials flow, logistics/ manufacturing interface; case study. Materials handling equipment packaging; reverse logistics.

Module 8 [3 Weeks]

LAT 70H: Information and communication and intelligent transport Systems in Transportation and Logistic

Introduction, customer order cycle; advanced order-processing systems; inside sales/telemarketing; Electronic data interchange; integrating order processing; financial considerations; Decision Support Systems; artificial intelligence and expert systems; Data base management; case study. Transport: Intelligent Transportation; Communication as a substitute for transportation.

Module 9 [3 Weekends]

LA T 709 Transport/Logistics Safety

Road transport safety regulations and traffic accident trends; Rail transport safety regulations and railway accident trends; inland water way safety regulations and accident trends; maritime transport and accident

trend; maritime transport safety regulations and accident trend; Air Transport safety regulations and accident trends; Pipeline safety regulations and accident trends. Material handling safety and management.

Module 10 [3 Weekends]

LA T 710: Introduction to Transport Planning

Transport demand and supply, transport pricing, taxes and subsidies in transport, consumer satisfaction. Examples from models of transport .Transport networks, transport flows, modal split, transport competition, land use/transportation Transport data: origin-destination matrix. Public transport and mass transit; public and private involvement in public transportation. Organization and control of transport, laws and regulations to improve traffic flow. Traffic signal and control; pedestrianisation; builder and user cost; operation and administration of public transport, public transport in Nigeria the different programmes by local governments, states and the Federal Government. Land use/transportation planning, trip

generation, trip distribution traffic assignment, traffic forecasting, urban transport, public transport in Nigeria. Organization and control of transport, traffic signals and control transport policy.

LA T 799: PGD Research Project

Students' independent research works. Projects should be a minimum of 5,000 words or 50 pages of A4 paper typed double spacing.

MASTER OF SCIENCE (M.SC) IN TRANSPORT/LOGISTICS MANAGEMENT

Programme Specialisation

The Centre comprises six (6) programme specialisations as follows:

1. Road Transportation Management
2. Rail Transportation Management
3. Maritime Transport Management
4. Air Transportation Management
5. Pipeline Transportation Management
6. Logistics and Supply Chain Management

Admission Requirements

- a. A Postgraduate Diploma in Transport and/or Logistics Management from a recognized University.
- b. A First Degree (not lower than Second Class Lower) in Transport, Logistics or related disciplines e.g. in Social Sciences, Management Sciences, Health Sciences, Town Planning, Engineering, etc.

Duration of the Programmes

The programmers shall be on Full/Part Time basis.

The Full-Time M.Sc. shall run for a minimum of 12 calendar months and a maximum of 24 calendar months.

Part-Time shall run for a minimum of 24 calendar months and a maximum of 36 calendar months.

Requirements for the Award of M.Sc

Transport/Logistics Management Degree in area of Specialisation

Candidate shall be allowed to graduate when he/she obtains in not less than 12 calendar months for Full-Time or 24 calendar months for part-time at least 36 course units including a Dissertation approved by the University Senate on the recommendations of the CELTRAS and the School of Graduate Studies.

The MSc in Transport and Logistics programme requires a minimum of 36 credit units made up as follows:

- | | |
|-------------------------------------|----------|
| ● Ten courses (3 credit units each) | 30 units |
| ● Dissertation | 6 units |
| Total | 36 units |

All courses must be taken and passed as well as the Dissertation.

Pass Mark

To pass a course the mark must be 50% and above.

Course Code and Numbering System

The course code for the programme is: LAT and the numbering for the courses starts from 801 - 898. Dissertation is 899.

Course Code and title

A) General Courses

S/No	Course code	Course title	Units	Status
1	SGS 801	Research and Quantitative Methods	2	C
2.	LAT 801	Transport. Energy and Environment	3	C
3.	LAT 802	Transport Finance and Economics	3	C
4.	LAT 803	Logistics & Supply Chain Management (LSCM]	3	C
5.	LAT 804	Transportation Planning Studies	3	C

6.	LAT 805	Information & Communication Systems in Transportation & LSCM	3	C
7.	SGS 802	Entrepreneurship and Management in Transport & LSCM	3	C
SUB TOTAL			21	
			units	

[B] Programme Specialization Courses

Road Transportation Management

S/No	Course code	Course Title	Units	Status
1	LAT 810	Road Transportation Operations	3	C
2.	LAT 811	Road Transportation Management	3	C
3.	LAT 812	Urban Transportation and Intercity Travel	3	C
4.	LAT 899	Dissertation	6	C
Sub			15	
Total			unit	

[2] Rail Transport Management

S/No	Course code	Course Title	Units	Status
1.	LAT 820	Rail Transportation Operations (Structure and Economics	3	C
2.	LAT 821	Rail Transport Management	3	C
3.	LAT 822	Rail Freight and Intermodalism	3	C
4.	LAT 899	Dissertation	6	C
Sub			15	
Total			unit	

[3] Maritime Transport Management

S/No	Course code	Course Title	Units	Status
1.	LAT 831	Maritime Transport Operation	3	C
2.	LAT 832	Maritime Transport Management	3	C
3.	LAT 833	Port and Shipping Administration	3	C
4.	LAT 899	Dissertation	6	C
Sub			15	
Total			unit	

[4] Air Transport Management

S/No	Course code	Course Title	Units	Status
1.	LAT 841	Air transport operations	3	C
2.	LAT 842	Air Transport Management	3	C
3.	LAT 843	Airline Management	3	C
4.	LAT 899	Dissertation	6	C
	Sub		15	
	Total		unit	

[5] Pipeline Transport Management

S/No	Course code	Course Title	Units	Status
1	LAT 851	Pipeline Transport Operations	3	C
2.	LAT 852	Pipeline Transport Management	3	C
3.	LAT 853	Oil and Gas Pipeline Transport	3	C
4.	LAT 899	Dissertation	6	C
	Sub		15	
	Total		unit	

[6] Logistics and Supply Chain Management

S/No	Course code	Course Title	Units	Status
1	LAT 861	Procurement/Purchasing and Materials Management Warehousing and Storage	3	C
2.	LAT 862	Planning for Logistics	3	C
3.	LAT 863	Global Logistics	3	C
4.	LAT 899	Dissertation	6	C
	Sub		15	
	Total		unit	

Summary

1.	General Courses:	21 Units
2.	Programme Specialization	9 Units
3.	Dissertation	6 Units
Total		36 Units

COURSE CONTENTS

SGS 801: Research and Quantitative Methods in Transportation and LSCM

Data Requirement for regional models: Inventory of existing conditions, land use data, demographic and economic data, travel inventories, house hold interview survey, transit onboard survey, workplace survey, external survey, commercial vehicle survey. Regional travel demand models: Networks; “Four-Step” Modeling Process: Trip purposes, trip generation, trip attraction, trip distribution, mode choice, time of day models, trip assignment. Model Calibration and Validation: Land use and trip generation; network development; mode choice vehicle assignment validation, transit time validation. Evaluation of Options. Regional software packages, Improvement to regional models. Introduction to

discrete models. Traffic simulation models. Site Traffic Analysis: Traffic forecasting; level of service analysis; mitigation; impact fees. Post processors. Limitations of the Models. Statistical Analysis:

General observations, Descriptive Statistics, Probability Distributions, normal distribution, sampling and inference, Regression overview.

LAT 801: Transportation, Society, Energy and Environment

Transportation and economic development; possible changes in the future; Intelligent transportation system. Congestion, history, measurements, Tolerance; Operational efficiency and congestion pricing. Communication as a substitute for transportation; growth in intermodal transportation; safety; public expectation of transportation. The concept of predictive modeling. Noise Analysis: Basics of sound, Highway traffic noise analysis, 'Airport noise analysis, Rail noise Analysis. Air Quality and Water quality: Regulations; description of air pollutants; Emissions; Dispersion modeling; Analysis. Energy Considerations: Petroleum

dependence; consumption analysis. Environmental laws and regulations. Global change.

LAT 802: Transport Finance and Economics

Cost estimating; Funding Sources and Allocation; Sources, public-private ventures; Financial Analysis; Economic Evaluation Tools; Societal Quantification of Costs and Benefits; Setting Priorities and Developing and Implementing Programs; Uncertainties: Information credibility, contingency and cost ranges, risk and sensitivity analysis.

LAT 803: Logistics and Supply Chain Management

Definition of logistics management; Development of logistics; Systems approach/integration; The role of logistics in the economy; The role of logistics in the organization; Total cost concept; Channels of distribution; Why do channels of distribution develop; Structure and operations of channels of distribution; Logistics and supply chain management; Key logistics activities; The relationship of logistics activities to logistics costs; issues in logistics.

LAT 804: Transportation Planning Studies

Overview of Principal Planning Studies; Description of Specific Methods; Capacity Studies; Travel time Studies; Trip Generation; Modal Studies, Statistical Analysis.

LAT 805: Information & Communication Systems in Transportation & LSCM

Introduction; Data Modeling and Data Base Design; GIS-T Data Models; Transportation Data Sources and integration; Shortest Path and Routing; Network Flows and Facility Location; GIS-Based Spatial Analysis and Modeling; Transportation Planning; Intelligent Transportation Systems; Transportation, Environment and Hazards; Logistics.

SGS 802: Entrepreneurship and Management in Transport & LSCM

PROGRAMMES SPECIALISATION

Specialization 1: Road Transport Management

LAT 810: Road Transport Operations

Historical perspectives; the sub modal agencies; road network and analysis; Road Transportation infrastructure; Flow Analysis; Safety and Security issues; Recent technological Developments. Freight Transport; Modal Choice; Intermodal Transport, Intercity Transport, The Nigeria's scenario.

LAT 811: Road Transport Management

Background and Perspectives, the Spectrum of Strategies; Planning Vision; Design and Implementation; Freight Transport; Vehicle replacement, selection, costing and legislation, unions. Road transport policy of Nigeria. Road transport regulations, Road Safety Corps of Nigeria institutional frameworks fed min of transport, state transport ministries.

Lat 812 Urban Transport and Intercity Travel

Introduction and background. Understanding the urban transportation plan, public participation; goals and objectives; financial plan; metropolitan transportation system; travel characteristics; inventories, forecasting travel, etc. Urban Transit: Transit in cities; defining transit; transit use and performance trends; transit modal design; system design; transit planning and operations; Para- transit service organization and financing. Intercity Passenger Travel: introduction and definitions; dimensioning existing intercity passenger travel and trends affecting future of intercity travel.

LAT 899: DISSERTATION

Students' independent research works. Dissertation should not be less than 25,000 words or 100 pages of A4 papers typed double spacing.

Specialization 2: Rail Transport Management

LAT 820: Rail Transport Operations

Historical perspectives; the sub modal agencies; rail transportation network and analysis; Rail transportation infrastructure; Flow Analysis; Rail

transportation Data Safety and Security issues; Policies and recent technological Developments, etc. The economics of rail manning and operations. Navigation planning; the trip planning, collision avoidance systems planning, cargo operations; cargo planning and loading shipboard maintenance and safety; fire containment methods. Human factors in rail operations. Commercial practice, marketing analysis in rail transport. The management of human resource Personnel development.

LAT 821: Rail Transport Management

Development of rail transport in the world and Nigeria in particular; Types of rail transport; The rail network and its maintenance; Route determination and selection; Methods of financing the rail infrastructure; track and load gauge in use and advantages and disadvantages; optimizing line capacity.

Performance characteristics of motive power units; inter-relationship of rail transport to other modes; intercity commuter passengers services; and high

speed container and bulk commodity freight services. National, regional and Local organization of rail transport; Policy formulation and implementation.

Operation practice in railway management operation. Legal requirements for safety of operation and training of operating staff; the Rail Act. NRC Act etc; government regulations, social services and subsidies/grants. **LABORATORY:** Project Work.

LAT 822: Freight Transport and Intermodal Transport

Transport mode characteristics, operational factors; consignment factors; cost and service requirement intermodal equipment; intermodal vehicles; intermodal infrastructure; freight facilities grants; vehicle selection; vehicle costing; vehicle costing, road freight legislation, Road freight transport planning and resourcing.

LAT 899: Dissertation

Students' independent research works. Dissertation should not be less than 10.000 words or 100 pages of A4 papers typed double spacing.

Specialization 3: Maritime Transport

LAT 831: Maritime Transport Operations

The economics of ship manning. Shipboard operations. Navigation planning; cargo operations; fire containment methods. Human factors in shipboard operations. Commercial practice, marketing analysis in shipping. Major shipping line of the world, types of sample, performance and capacity. Various means of motive power; palletisation and containerization. Shipping in relation to other forms of transport. Multipurpose vessels etc. Maritime transport organization. Management and operation, policy formulation and implementation, operating practices (schedule, routes and Crews). Legal requirement and operation. Design and construction of vessels, the prevention, maintenance of vessels and equipment, Training and licensing operating crews. Marketing and commercial

policy. Regulatory licensing of maritime transport.
Future development in maritime transport.

LAT 832: Maritime/ Transport Management

Historical perspectives; the sub modal agencies; maritime network and analysis; Maritime transportation infrastructure; Flow Analysis; Safety and Security issues; Policies and recent technological Developments. The maritime industry in Nigeria, the current structure and composite financial and traffic statistics; the Port Concession Act; the Cabotage Act; the growth of regional carriers; problem and prospects. Economic characteristics of the Maritime industry.

LAT 833 Port and Shipping Administration

Shipping and export; imports ownership structure; organization of a shipping company; policy formulation and implementation. Distraction and control. Liner inferences, Tramps, Types of charters and charter parties. The ship broker, freight rate, port dues and rate. Ship chartering, management

techniques, control and operating cost, transshipment and distribution of cargo.

Cargo clearing and forward. The IMO, UNCTAD and the Liner Code and Conventions on pollution. The Nigerian Shipping Council, National Maritime and Safety Agency. Corporate planning, directing and control of sea pollution, training and certificate navigation and engineering officers. Relevant international adversary and regulatory use analysis. Administration of individual Nigeria merchant and Naval ports. Documentation procedures at the ports. Comparison of global practices in ports administration.

LAT 899: Dissertation

Students' independent research works. Dissertation should not be less than 10,000 words or 100 pages of A4 papers typed double spacing.

Specialization 4: Air Transport Management

LAT 840: Air Transport Operation

The characteristics, scope, and major economic significance of the aerospace industry and its major segments: the government market and the commercial market for air transport and general aviation aircraft; definition of the air transport industry and its economic importance; global historical perspectives [emphasis on the US]; the Airline Deregulation Act of 1978 and post deregulation ; spatial and temporal development in the aviation industry; Air transportation regulators and associations; statistics in the general aviation industry; general aviation airports and the general aviation support industry - the manufacturers, the fixed-base operators [FBO]; and the users of general aviation aircraft. The airport types and characteristics, flight delay cancellation. Causes and coping strategies.

The airline industry in Nigeria, the current structure and composite financial and traffic statistics; the Deregulation Act of 1988; the growth of regional

carriers; problem and prospects. Economic characteristics of airlines

LAT 841: Airline Management

Airline Management and Organization - Forecasting Methods - primary forecasting methods used by firms engaged in air transportation. Airline Passenger Marketing: Computerized reservation systems [CRSs], travel agents. Hub-and-spoke service. Airline Pricing, demand, and Output determination: determinants of airline passenger demand and elasticity of demands, air fares, pricing process - pricing strategies and objectives; Air Cargo; Principles of Airline Scheduling; Fleet planning - Aircraft Selection Processes; Airline Labour Relations; Airline Financing.

LAT 842: Air Transport Management

International Conferences and Conventions [ICAO and IATA] and their impacts on world aviation; the International Aviation Market/ International Air Transportation Act of 1979; globalization and international airline alliances; airline security and

safety. Flight delay and cancellation – passengers rights etc.

LAT 899: Dissertation

Students' independent research works. Dissertation should not be less than 10.000 words or 100 pages of A4 papers typed double spacing.

Specialization 5: Pipeline Transport Management

LAT 850: Pipeline Transport Operation

The characteristics, scope, and major economic significance of the pipeline industry and its major segments: the government market and the commercial market for pipeline transport; definition of the pipeline transport industry and its economic importance; global historical perspectives; Pipeline transportation regulators and associations; statistics in the pipeline industry; general aviation airports and the general aviation support industry - the manufacturers, the fixed-base operators [FBO]; and the users of general aviation aircraft.

The pipeline industry in Nigeria, network, flows; the current structure and composite financial and traffic statistics; the growth of regional carriers; problem and prospects. Economic characteristics of the pipeline industry.

LAT 851: Pipeline Transport Management

The principal characteristics and organization of pipeline and petroleum Transportation Terminal and handling equipment in petroleum marketing; Interface with other modes and terminals; Route determination and selection; development and closure of lines; methods of optimizing pipeline capacity on distribution system; Land-use pattern in relation to pipeline and petroleum development; Marketing and distribution of petroleum products, the effects of subsidy on petroleum consumption; environmental considerations in oil exploration, distribution and marketing.

LAT 852: Oil and Gas Pipeline Transport

Description and Importance, Oil and Gas pipeline layout, oil pipeline laying configuration; Oil pipeline

vandalism and sabotage politics of oil and gas pipeline transportation; the Nigerian experience.

LAT 899: Dissertation

Students' independent research works. Dissertation should not exceed 10,000 words or 100 pages of A4 papers typed double spacing.

Specialization: 6: Logistics and supply Chain Management

LAT 860: Procurement, Materials Management/ Warehousing and Storage

The role of purchasing in supply chain purchasing activities, purchasing research and planning; purchasing cost management; E-procurement paperless purchasing. Basic inventory concepts and management; Case studies; Scope of materials management; forecasting; Total Quality Management[TQM]; materials flow; logistics/manufacturing interface; case study; Materials handling equipment packaging; reverse

logistics; Principles of Warehousing; Storage and Handling Systems; Receiving and Dispatch.

LAT 861 Planning Logistics

Importance of logistics planning process, factors in logistics planning process: product characteristics, product life cycle, packaging and unit loads. Key logistics processes, tools and techniques of logistics planning process. Logistics network planning, logistics management and organisation.

Manufacturing and materials management concepts: introduction; just-in-time concept, materials Requirement Planning [MRP, Manufacturing Requirement Planning [MRP]; The MRP System; Flexible fulfillment [postponement]; the Effects on distribution activities.

LAT 862: Global Logistics

Global logistics definition; International distribution channel strategies; Management of export shipment; Characteristics of global markets. Definition of strategy and strategic planning; logistics and

corporate strategy; organization and planning process; the strategic logistic plan. Challenges and critical issues.

LAT 899: Dissertation

Students' independent research works. Dissertation should not be less than 20.000 words or 100 pages of A4 papers typed double spacing with Times New Roman font.

DOCTOR OF PHILOSOPHY (PH.D)

The Centre offers a doctor of philosophy degree with specialization in:

- a. Transport Management
- b. Logistics & Supply Chain Management

Admission Requirements

An M.Sc Degree in Transport. Transport Economics, Transport Geography. Transport Management, Transport Engineering. LSCM etc with a minimum CGPA of 3.5 on a 5 point scale.

Duration of the Programme

The programmers shall be on Full/Part-Time basis.

The Full-Time shall run for a minimum of 24 calendar months [2 years] and a maximum of 48 calendar months [4 years],

Part-Time shall run for a minimum of 48 calendar months [4 years] and a maximum of 72 calendar months [6 years].

Requirements for the Award of PhD Transport/Logistics Degree

Candidate shall be allowed to graduate when he/she obtains in not less than 2 years for Full-Time or 4 years for Part-Time, a minimum of an average of 60% in a Thesis approved by the University Senate on the recommendations of CELTRAS through the Faculty of Social Sciences Graduate Board of Studies and the School of Graduate Studies.

The academic programme comprises

- Courses
- Seminars
- Thesis

Each of the *PhD* programmes in *Transport or Logistics* require a minimum of 24 credit units made up as follows:

- | | |
|--------------------------------------|----------|
| ● Five courses (3 credit units each) | 15 units |
| ● Thesis | 9 units |
| Total | 24 units |

All courses must be taken and passed as well as the Thesis.

Pass Mark

To pass a course the mark must be 50% and above.

Course Code and Numbering System

The course code for all the programmes is: LAT and the numbering for the courses begin with 901. The code for the thesis is 999.

Course Code and Title

Year 1

All:

LAT 901 Research Processes in Transport & LCSM
3 Units

LAT 902 Statistical Package for Social Sciences (SPSS)
3 Units

Transport Management Option

S/No	Course Code	Course title	Unit	Status
1.	LAT 911	Information System and Communication Technology in Transportation (Seminar)	3	B
2.	LAT 912	Entrepreneurship in Transportation (Seminar)	3	B
3.	LAT 913	Contemporary Issues in Transportation (Area Paper).	3	B
4.	LAT 999	Ph.D Thesis	9	B
			24	
Total (6+ 9+ 9)			units	

Logistics & Supply Chain Option

S/No	Course Code	Course title	Unit	Status
1.	LAT 921	Information Systems and Communication Technology in Logistics and Supply Chain Management (Seminar)	3	C
2.	LAT 922	Entrepreneurship in Logistics and Supply Chain Management (Seminar)	3	C
4.	LAT 923	Contemporary Issues in Logistics and Supply Chain Management (Area Paper).	3	C
5.	LAT 999	Ph.D Thesis	9	C
			24	
Total (6+9+9)			units	

Course Content/Description

LAT 901: Research Processes in Transport and LSCM

Transport/Logistics Research Problem identification. Relationship between the research problem, research questions, research topic and objectives of study. Transport Data and Services. Literature search in transport studies. Relationship between gap in literature, findings and recommendations. Data collection and analysis in transport and logistics research.

LAT 902: Statistical Package for Social Sciences (SPSS).

This is a workshop.

Seminars

LAT 911-913 Seminars Courses for Transport Management option.

LAT 921-923 Seminars Courses for Logistics & Supply Chain Management Option.

LAT 999: PhD Thesis

Students' independent research. The thesis should not be less than 50,000 words or 200 pages on A4 sized paper typed double spacing with New Times Roman Font and size 12..