NATIONAL BOARD FOR TECHNICAL EDUCATION



HIGHER NATIONAL DIPLOMA (HND)

IN

TRANSPORT PLANNING MANAGEMENT

CURRICULUM AND COURSE SPECIFICATIONS

HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT GENERAL INFORMATION HND IN TRANSPORT PLANNING AND MANAGEMENT PROGRAMME

- 1.0 TITLE OF THE PROGRAMME: The title of the programme is Higher National Diploma Transport Planning Management
- 2.0 Goal and Objectives of the Programme

Goal: The programme is designed to produce professionals with required knowledge and skills in transport planning and management.

Objectives:

On completion of the Programme, the grandaunts should be able to:

- i. Recognize contributions of transport planning and management in nation building
- ii. Analyze the various level of transport planning, operations and management
- iii. Analyze various transport challenges and their solutions
- iv. Conduct transport survey and write a technical report
- v. Partake in the planning and construction of transport facilities
- vi. Establish investment opportunities and manage small and medium transport enterprise
- vii. Apply theories and models in transport planning and management
- viii. Apply laws and regulations guiding the operations and management in the transport systems.
- ix. Carry out management and administrative duties in Transport Planning and Management with minimum supervision
- x. Apply the computer and transport information and communication systems appropriately in transport operations

3.0 ENTRY REQUIREMENTS

The general entry requirements for the HND in Transport Planning Management programme include:

- a. All the requirement for the National Diploma (ND) in Transport Planning Management with a minimum of lower credit pass (CGPA) of 2.50 and above obtained from an NBTE accredited programme plus a minimum of one year Post-ND cognate work experience in Public Administration
- b. In exceptional cases, the ND diplomates with a pass grade (CGPA) 2.0 2.49) in the ND examination that had two or more years of cognate work experience may be considered for admission into the programme. However, the number of candidates should not be more than 10% of the total student intake in each class.

4.0 STAFFING REQUIREMENT

4.1 Headship of the Department

The HOD should be at least a Senior Lecturer who has a minimum of second Degree in Transport Planning Management. He should have at least 5 years cognate experience and must be registered with relevant professional body.

4.2 Core Teaching Staff

At the point of mounting the programme, there should be a minimum of four Lecturers who should spread from Lecturer II and above with first/second degrees (BSc/MSc,) in Transport Planning Management.

4.3 Technical Staff

These are technically qualified staff not involved in direct lecturing/instructing, but who provide vital and indispensable services in all facilities used in the implementation of the programme.

5.0 CAREER/ ACADEMIC PROSPECTS

On successful completion of the programme, the graduate of Transport Planning Management can work in both Public and Private sector organization as listed:

- 1. Transport Divisions of Ministries, Departments, and Agencies
- 2. Military and Para-Military Agencies
- 3. Government/Private companies
- 4. Academics and Research Institutes

He or she can go further in he or she academic pursuit for PGDPA, Masters degree in Transport Planning Management and the following programmes:

- 1. PGD, MSc, PhD in Transport Planning and Management
- 2. PGD, MSc, PhD in Transport and Logistics Management
- 3. PGD, MSc, PhD in Transport Safety Technology
- 4. PGD, MSc, PhD in Project Management
- 5. PGD, MSc, PhD in Aviation Management
- 6. PGD, MSc, PhD Maritime Management
- 7. PGD, MSc, PhD Transport Management

6.0 DURATION

The duration of the programme is two academic sessions consisting of four semesters of 17 weeks each.

7.0 CURRICULUM

7.1 The curriculum of the programme consists of four main components. These are:

General Studies;

Foundation Courses:

Professional Courses;

Project.

7.2 The General Education component shall include courses in:

English Language, Entrepreneurship and Citizenship Education. The General Studies component shall account for not more than 10-15% of the total contact hours for the programme.

Foundation courses include courses in Economics and Computer Science. The number of hours for the courses may account for about 10-15% of the total contact hours.

Professional courses are core courses of the programme that give the student the theory and professional skills he/she needs to practice his/her field of calling at the Technologist level. These may account for between 70-80% of the contact hours.

8.0 CURRICULUM STRUCTURE

The structure of the programme consists of four semesters of classroom, and workshop activities in the institution. Each semester shall be of 17 weeks duration made up as follows:

- a. 15 weeks of teaching, i.e. instruction, practical exercise, quizzes, test, etc; and
- b. 2 weeks for examinations and registration.

9.0 ACCREDITATION

The National Board for Technical Education shall accredit the programme before the diplomates can be awarded the Higher National Diploma certificates. Details about the process of accrediting a programme for the award of the Higher National Diploma are available from the office of the Executive Secretary, National Board for Technical Education, Plot "B", Bida Road, P.M.B. 2239, Kaduna, Nigeria.

10.0 AWARD OF HIGHER NATIONAL DIPLOMA

- **10.1** Conditions for the award of Higher National Diploma include the following:
 - a. satisfactory performance in all prescribed course work, which may include class work, tests, quizzes.
 - b. Workshop practice, laboratory work and fieldwork.
 - c. Satisfactory performance at all semester examinations.
 - d. Satisfactory completion of final year project work.

Normally, for all courses including final year project work, continuous assessment contributes 40%, while semester examinations and project reports are weighted 60% to make a total of 100%. For Seminar presentation, Continuous assessment contributes 30%, while Seminar reports are weighted 70% to make a total of 100%.

- **10.2** Higher National Diploma should be awarded in four classes:
 - a. Distinction CGPA of 3.50 and above
 - b. Upper Credit CGPA of 3.0 3.49
 - c. Lower Credit CGPA of 2.50 2.99
 - d. Pass CGPA of 2.00 2.49.
- 10.3 Grading of Courses: Courses shall be graded as follows:

MARKED RANGE	LETTER GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50

65% – 69%	В	3.25
60% – 64%	BC	3.00
55% – 59%	С	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25
40% – 44%	E	2.00
Below 40%	F	0.0

11.0 GUIDANCE NOTES FOR TEACHERS

- 11.1 The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stress the need to introduce the semester credit units which will enable a student who so wishes to transfer the units already completed in an institution of similar standard from which he/she is transferring.
- 11.2 In designing the units, the principle of the modular system by product has been adopted, and each of the professional modules, when completed provides the student with technologist operative skills, which can be used for employment purposes or self-reliance.
- 11.3 As the success of the credit unit system depends on the articulation of programmes between the institutions and industry, the curriculum content has been written in behavioral objectives, so that it is clear to all the expected performance of the student who successfully completed some of the courses or the diplomates of the programme. This is slight departure in the presentation of the performance based curriculum which requires the conditions under which the performance is expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which performance can take place and to follow that with the criteria for determining an acceptance level of performance.

The Academic Board of the institution may vet departmental submission on the final curriculum. Our aim is to continue to see to it that a solid internal evaluation system exists in each institution for ensuring minimum standard and quality of education in the programmes offered throughout the Polytechnic system.

11.4 The teaching of the theory and practical work should, as much as possible, be integrated. Practical exercises, especially those in professional courses and laboratory work should not be taught in isolation from the theory. For each course, there should be a balance of theory to practical in the ratio of 50:50 or 60:40 or the reverse.

12.0 PRACTICAL LOGBOOK

A personal Logbook to be kept by each student shall contain all the day-to-day, weekly summary, and semester summary of all the practical activities from day one to the end of the programme. This is to be checked, marked, endorsed and recorded by the lecturers/technologists concerned at the end of every week.

13.0 FINAL YEAR PROJECT

Final year students in this programme are expected to carry out a project work. This could be on individual basis or group work of not more than two students per group, but reporting must be undertaken individually. The project should, as much as possible incorporate basic elements of design, drawing and complete fabrication of a marketable item or something that can be put to use. Project reports should be well presented and should be properly supervised.

The departments should make their own arrangement of schedules for project work.

HND PROGRAME IN TRANSPORT PLANNING AND MANAGEMENT YEAR 1 SEMESTER 1

CODE	COURSE TITLE	L	P	СН	CU
GNS 311	International Relations	2	0	2	2
MKT 424	Marketing Analysis and Decision making	2	0	2	2
EED 312	Entrepreneurial Development I	1	2	3	1
TPM 311	Management Accounting in Transport	1	0	3	2
TPM 312	Transport Finance and Investments	2	0	2	2
TPM 313	Management and Transport Organizational Behavior	2	0	2	2
TPM 314	Quantitative Techniques in Transport	1	0	3	2
TPM 315	Integrated Public Transport Planning and Operations	1	0	3	2
TPM 316	Transport Planning	1	2	3	2
TPM 317	Transport and Environment	2	0	2	2
TPM 318	Rail Operations and Management	1	0	3	2
TPM 319	Change to Transport Planning Design V		4	5	3
	Total	17	8	33	24

YEAR 1 SEMESTER 2

CODE	COURSE TITLE	L	P	СН	CU
GNS 321	Communication in English	2	0	2	2
TPM 321	Change to Traffic Engineering	2	1	3	2
TPM 322	Change to Transport Insurance	2	0	2	2
TPM 323	Law of Business and Carriage	2	0	2	2
TPM 324	Freight Transport Planning and Management	2	0	2	2
TPM 325	Fleet Operations and Management	2	0	2	2
TPM 326	Transport for Specialized Need	2	0	2	2
TPM 327	Research Methods in Transport Planning and Management	2	0	2	2
TPM 328	Transport Policy and Administration	2	0	2	2
TPM 329	Aviation Operations and Management	1	0	3	2
TPM 330	Change to Transport Planning Design VI	1	3	5	3
	Total	20	4	27	23

YEAR 2 SEMESTER 1

CODE	Course Title	L	P	СН	CU
GNS 412	Psychology	2	0	2	2
EED 416	Entrepreneurship Development	1	1	2	1
TPM 411	Project Planning and Evaluation	2	0	2	2
TPM 412	Transport and Tourism	2	0	2	2
TPM 413	Change to Land Use planning and Analysis	1	0	2	2
TPM 414	Transport Seminar	2	0	2	2
TPM 415	Change to transport management information systems	2	0	2	2
TPM 416	Traffic Management and Safety	1	0	3	2
TPM 417	Fundamentals of Operations Research	1		3	2
TPM 418	Change to pipeline transport operations and management	21	0	23	2
TPM 419	Change to Transport Planning Design VII	1	3	5	3
	Total	16	4	28	22

YEAR 2 SEMESTER 2

TEME SENIESTER						
CODE	Course Title	L	P	СН	CU	
GNS 421	Communication in English	2	0	2	2	
TPM 421	Change to freight clearing and forwarding	2	0	2	2	
TPM 422	Transport Technology	1	2	3	2	
TPM 423	Transport Economics	2	0	2	2	
TPM 424	Rural Transport Operations and Management		0	2	2	
TPM 425	Logistics and Supply Chain Management	2	0	2	2	
TPM 426	Maritime Transport Operations Management	2	0	2	2	
TPM 427	Change to professional Ethics and Practice in Transport	1	0	3	2	
TPM 428	Project	1	0	2	3	
TPM 429	Change to transport planning design VIII)		3	5	3	
	Total	17	3	24	22	

YEAR 1 SEMESTER 1

Programme: Higher National Diploma (HND) in Transport Planning and Management						
Course Title: MANAGEMENT ACCOUNTING IN TRANSPORT		MANAGEMENT ACCOUNTING Code: TPM 311				
11,1	IN IN STORY		Credit Unit:2			
		Pre-requisite:	Theoretical: 2 hours/week			
Year:1	Semester: 1		Practical 0 : hours/week			
	* *	ith knowledge of management and monitoring performance in	of accounting techniques to support management ransport organization			
On comp	letion of this course, the student should be ab	ole to:				
1.0	Comprehend the nature, source and purpos	e of management accounting				
2.0	Comprehend the fundamentals of accounting	ng concepts				
3.0	Apply cost accounting techniques					
4.0	Prepare budgets for planning and control in transport organization					
5.0	Compare actual costs with standard costs and analyze any variances					
6.0	Recognize the performance measurements and monitor transport business					

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT

COURSE TITLE: MANAGEMENT ACCOUNTING IN TRANSPORT COURSE CODE: TPM 311 CONTACT HOURS: 2

GOAL: The course is intended to equip the students with knowledge of management accounting techniques to support management in planning, controlling and monitoring performance in transport organization

COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS

General objective 1.0: Comprehend the nature, source and purpose of management accounting

WK	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation
	Objective		Resources	Objective	Activities	
1-3	1.1 Explain the nature, source and purpose of management accounting 1.2 Outline roles and principles of accounting	 i. Explain the nature, source and purpose of management accounting ii. Discuss the roles and principles of accounting 	Textbooks, Financial Reports, Annual Reports			State the principles of accounting
	1.3 Explain Double Entry Book Keeping 1.4 Explain capital and revenue expenditure in business	iii. Prepare double Entry Book Keeping iv. Discuss capital and revenue expenditure in business v. Prepare of Trial Balance				Prepare Trial Balance for transport activities

General Objective 2.0: Comprehend the fundamentals of accounting concepts

4-5	2.1 State the	2.1 Explain	Textbooks,	Appraise the
	fundamentals of	fundamentals of	Financial Reports,	fundamentals of
	accounting concepts	accounting concepts	Annual Reports	accounting
	2.2 Explain the	2.2 Explain techniques		concepts
	Techniques for cash Flow	for cash flow statements		
	Statements	2.3 Prepare accounting		
	2.3 Explain accounting	for depreciation, bad		
	for Depreciation	debts and provisions for		
	2.4 Discuss accounting	bad debts		
	ratios and Interpretation	2.4 Discuss accounting		
	2.5 Describe final	ratios and interpretation,		
	accounts for transport	financial reporting and		
	business	users of account		
		2.5 Prepare Final		
		Accounts for transport		
		business		
General	Objective 3.0: Apply cost a	accounting techniques		
6-7	3.1 Define accounting for	i. Explain accounting for	Relevant	With relevant
	material, labour and	material, labour and	Multimedia	example,
	overheads	overheads	presentation,	differentiate
	3.2 Differentiate between	ii. Explain absorption and	Textbooks	between
	absorption and marginal	marginal costing	Journals,	absorption and
	costing	iii. Discuss cost	Publications on	marginal costing
	3.3 Explain cost	accounting methods	transportation and	
	accounting methods	iv. Discuss alternative	project planning	Appraise cost
	3.4 Describe alternative	cost accounting		accounting
	cost accounting	principles		methods

	principles					
Genera	Objective 4.0: Prepare budg	ets for planning and control	in transport organizat	cion	1	
8-9	4.1 Define budget	i. Explain the nature,	Textbooks,			Differentiate
	4.2 Outline techniques	components and purpose	Financial Reports,			petween capital
	for budget preparation	of budgeting	Annual Reports			oudgetary and
	4.3 Explain capital	ii. Discuss techniques for	7 timuai reports			discounted cash
	budgeting and discounted	budget preparation				flow
	cash flow	iii. Explain capital				IIOW
	4.4 Explain budgetary	budgeting and discounted				
	control and reporting	cash flow				
	4.5 Prepare budget for	iv. Explain budgetary				Prepare budget
	mini organization	control and reporting				for a transport
	mini organization	v. Give assignment on				organisation
		budget preparation				
Canara		C 1 1	and analyza any yani	2722		
	Objective 5.0: Compare act	·		ances	1 1,	
10-12	5.1 Explain Costing	i. Explain Costing	Textbooks,			Explain Costing
	Concepts	Concepts; Costs	Financial Reports,			Concepts
	5.2 Explain accounting	Classification and	Annual Reports			
	for Overheads	Behavior.				Differentiate
	5.3 Explain Standard	ii. Discuss accounting for			1	oetween
	costing and Standard	Overheads				Standard costing
	costing system	iii. Differentiate between				and Standard
	5.4 Explain variance	Standard costing and				costing system
	calculations and analysis	Standard costing system				osting system
	5.5 Discuss reconciliation	iv. Explain variance				
	of budgeted and actual	calculations and analysis				

	profit	v. Explain reconciliation			
		of budgeted and actual			
		profit			
General	objective 6.0: Recognize the	e performance measurements	s and monitor transpor	rt business	
13-14	6.1 Define performance	i. Explain performance	Textbooks,		Differentiate
	measurement	measurement	Financial Reports,		between cost
	6.2 Explain the	ii. Explain the	Annual Reports		reductions and
	application of	application of	Journals		value
	performance	performance			enhancement
	measurement	measurement			
	6.3 Differentiate between	iii. Discuss cost			
	cost reductions and value	reductions and value			
	enhancement	enhancement			
	6.4 Explain the methods	iv. Describe the methods			
	for monitoring	for monitoring			
	performance and	performance and			
	reporting	reporting			

Programme: Higher National Diploma (HND) in Transport Planning and Management						
Course Title: TRANSPORT FINANCE AND INVESTMENTS		Code: TPM 312	Credit Hour: 2			
1111			Credit Unit:2			
		Pre-requisite:	Theoretical: 2 hours/week			
Year:1	Semester: 1		Practical 0 : hours/week			
Goal: T	The course is intended to acquaint students wit	h knowledge of financial investment in trans	port system			
General	Objectives:					
On comp	pletion of this course, the student should be ab	le to:				
1.0	Comprehend the nature of transport finance	and investment.				
2.0	Appreciate market structure and marketing s	strategies in relation to transport industry				
3.0	Comprehend investment appraisal for decisi	on making in transport enterprise				
4.0	Appreciate Public-Private Partnerships for the provision of transport infrastructure					
5.0	Analyze the risks and uncertainty in transportation finance and investments					

PROGI	RAMME: HIGHER NATIONA	AL DIPLOMA IN TRANSPO	ORTATION I	PL	ANNING AND MANAG	EMENT	
COURS	COURSE TITLE: TRANSPORT FINANCE AND INVESTMENTS COURSE CODE: TPM 312 CONTACT HOURS: 2-0-0						
GOAL:	The course is intended to equip	the students with knowledge of	of financial inv	ves	stment in transport system		
COURS	SE SPECIFICATION:	THEORETICAL CONTE	ENTS		PRACT	ICAL CONTENTS	
General	objective 1.0: Comprehend the	nature of transport finance and	l investment				
WK	Specific Learning Objective	Teachers Activities	Learning		Specific Learning	Teachers Activities	Evaluation
			Resources		Objective		
1-2	1.1 Define transport finance	Explain transport finance	Textbooks,				Differentiate
	and investment	and investments	Financial				between
	1.2 Examine the nature of	Examine the nature of	Reports,				finance and
	transport finance and	transport finance and	Annual				investments
	investments	investments	Reports				
	1.3 Explain the sources of	Explain the sources of					Present a
	finance and investment	finance and investment					case study of
	potentials in transport	potentials in transport					transport
							finance and
							investments
G 1		1 1 1					1
General	Objective 2.0: Appreciate marke	et structure and marketing stra	tegies in relati	ion	to transport industry		
3-4	2.1 Define market structures	Explain markets and	Textbooks,				Explain the
	and marketing strategies	market structures	Financial				characteristic
	2.2 Explain the features of	Explain the features of	Reports,				s of
	market structure in	market structure in relation	Annual				competition
	relation to transport	to transport industry	Reports				in transport
	industry	Explain the characteristics					markets

	 2.3 Explain the characteristics of competition in transport markets 2.4 Explain the roles of marketing in transport industry 2.5 Explain marketing strategy in transport business 2.6 Identify the challenges of transport markets 	of competition in transport markets Discuss the challenges of transport markets Explain the roles of marketing in transport industry Explain marketing strategy in transport business			Explain the roles of marketing in transport industry
Genera	l Objective 3.0: Comprehend inve	estment appraisal for decision	making in transp	ort enterprise	
5-6	3.1 Describe the accounting rate of return and payback period as methods of investment appraisal 3.2 Explain the principles of Discounted Cash Flows (DCF). 3.3 Explain the meaning of Net Present Value, Internal Rate of Return (IRR) of an Investment 3.4 Determine the Net Present Value(NPV) and Internal Rate of Return of an Investment; 3.5 Explain the use of NPV	Discuss the accounting rate of return and payback period as methods of investment appraisal Explain the principles of Discounted Cash Flows (DCF). Explain the meaning of Net Present Value, Internal Rate of Return (IRR) of an Investment Determine the Net Present Value(NPV) and Internal Rate of Return of an Investment;	Relevant Multimedia presentation, Textbooks Journals, Publications on transport and project planning		Distinguish between Net Present Value and Internal Rate of Return (IRR) of a transport investment

	and IRR in an transport	Explain the use of NPV			
	investment	and IRR in an transport			
		investment			
General	Objective 4.0: Appreciate Public	c-Private Partnerships for the p	provision of trans	port infrastructure	
7-8	4.1 Define Transport infrastructure and Public Private Partnership 4.2 Outline legal and regulatory frameworks for the provision of transport infrastructure 4.3 Explain procurement and quality control 4.4 Discuss the peculiarity of PPP tenders and process for	Explain Transport infrastructure and Public Private Partnership Discuss legal and regulatory frameworks for the provision of transport infrastructure Explain procurement and quality control Discuss the peculiarity of PPP tenders and process	Textbooks, Financial Reports, Annual Reports Manuals Journals Monograph		Appraise the roles of PPP in the provision of transport infrastructure
	Contracts	for Contracts			
General	Objective 5.0: Analyze the risks	and uncertainty in transport fi	inance and invest	ments	
9-10	5.1 Define risk and uncertainty 5.2 Outline risk and uncertainty in transport finance and investment 5.3 Explain the significance of Risks and uncertainty	i. Explain risk and uncertainty ii. Explain risk and uncertainty in transportation finance and investment iii. Discuss the significance	Textbooks, Financial Reports, Annual Reports, Journals		Discuss risks and uncertainty mitigation and adaptation methods
	5.4 Describe risks and	of Risk and uncertainty			111041040

uncertainty mitigati	ion and iv. Explain risk and	
adaptation methods	uncertainty mitigation and	
5.5 Explain the prin	nciples of adaptation methods	
insurance in transpo	ort finance v. Explain principles of	
and investments	insurance in transport	
	finance and investments	

Programme: Higher National Diploma (HND) in Transport Planning and Mana	gement
Course Title: QUANTITATIVE TECHNIQU	ES Code: TPM 314	Credit Hour: 2
IN TRANSPORT		Credit Unit:2
	Pre-requisite:	Theoretical: 2 hours/week
Year:1 Semester: 1		Practical 0 : hours/week
Goal: The course is intended to equip the studer	its with quantitative and analytical sk	ills to interpret transport data and make
Logical decisions		
General Objectives:		
On completion of this course, the student should	be able to:	
1.0 Comprehend empirical frequency distril	outions	
2.0 Apply discrete random variables and pro	obability distributions	
3.0 Apply sampling distributions		
4.0 Undertake statistical investigation		
5.0 Apply statistical decision procedures		
6.0 Estimate variation, model building and	forecasting analysis	

PROGR	AMME: HIGHER NATIONA	AL DIPLOMA IN TRANSPO	ORT PLANNI	NG AND MANAGEMEN		
	E TITLE: QUANTITATIVE			OURSE CODE: TPM 314	CONTACT HOURS	: 2-0-0
	The course is intended equip the	-		ills to interpret transportation	n data and make logical	decisions
COURSI	E SPECIFICATION:	THEORETICAL CONTE	ENTS	PRACT	ICAL CONTENTS	
General c	bjective 1.0 Comprehend empi	rical frequency distributions				
WEEK	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective		
1-2	1.1 Explain frequency	i. Explain frequency	Books		i.	Compute
	distributions and graph	distributions and graphical	Journals			measures of
	1.2 Explain weighted	presentations	Calculator			central
	arithmetic means	ii. Calculated weighted	Pencil, ruler,			tendency
	1.3 Describe measures of	arithmetic means	graph books.			
	central tendency	iii. Solve problems on				Differentiate
	1.4 Explain measures of	mean, median and mode				between
	dispersions	of group and ungrouped				measures of
		data				central
		iv. Solve problems on				tendency and
		range, standard deviation,				measures of
		variance and coefficient of				dispersions
		variation.				
General C	Objective 2.0: Apply discrete ra	andom variables and probabili	ty distribution	S		
3	2.1 Explain discrete random	Explain discrete random	Books			Explain
	variables	variables	Journals			probability
	2.2 Explain probability	Explain probability	Magazines			distributions
	distributions	distributions				
	2.3 Explain the	Explain the fundamental				Explain
	fundamental probability	probability rules.				Binomial

	rules. 2.4 Explain Bayes' Theorem 2.5 Explain probability distributions of discrete random variables 2.6 Explain Binomial distributions 2.7 Explain Poisson	Apply Bayes' Theorem Explain probability distributions of discrete random variables Explain Binomial distributions Explain Poisson distribution			distributions
	distribution				
General (Objective 3.0: Apply sampling	distributions			
4-5	3.1 Define sampling	Explain sampling	Books		Explain in
	3.2 Explain the methods of	Explain the methods of	Journals		details the
	sampling	sampling	Magazines		methods of
	3.3 Explain sampling	Explain sampling			sampling in a
	distribution of number	distribution of number of			transport
	of occurrences	occurrences			research
	3.4 Explain sampling	Explain sampling			
	distribution of a	distribution of a population			
	population	Explain continuous			
	3.5 Analyze continuous	distributions			
	distributions	Discuss Normal			
	3.6 Analyze Normal	distributions			
	distributions				
General (Objective 4.0: Undertake statis	stical investigation		 	
6-7	4.1 Explain the	Explain the Formulation of	Books		Investigate

Formulation of a research problem 4.2 Explain the design of a statistical investigation 4.3 Explain the formulation of research methodology 4.4 Explain types and sources of data for a	a research problem Explain the design of a statistical investigation Explain the formulation of research methodology Explain types and sources of data for a research 4.6 Explain the methods of	Journals Magazines CILT Transport Focus Bulletin	transport problems in a city centre
research 4.5 Explain the methods of data analysis and presentation General Objective 5.0: Apply statistical	data analysis and presentation		
5.1 Define hypothesis 5.2 Explain rationales and procedures of hypothesis testing 5.3 Explain hypothetical errors. 5.4 Explain one-sample tests and two-sample tests	i. Explain the meaning of hypothesis ii. Explain rationales and procedures of hypothesis testing iii. Explain type I and Type II errors, critical regions and error treatment iv. Explain one-sample tests (large samples); two-sample tests (large samples);	Books Journals Magazines CILT Transport Focus Bulletin	Explain rationales and procedures o hypothesis testing

		population standard deviation (unknown); t- test for paired observations etc			
General C	Objective 6.0: Estimate variation	on, model building and forecas	ting analysis		
10-14	6.1 Explain the attributes of	Explain the attributes of	Books		Differentiate
	parametric and non-	parametric and non-	Journals		between
	parametric analysis	parametric analysis	Magazines		parametric
	6.2 Explain Chi-Square test	Explain Chi-Square test	CILT		and non-
	and analysis of variance	and analysis of variance	Transport		parametric
	6.3 Explain Regression and	Explain Regression and	Focus		statistics
	Correlation Analysis	Correlation Analysis	Bulletin		
	6.4 Explain Time Series	Explain Time Series			
	Analysis	Analysis			
1					
1					

Programme: Higher National Diploma (HND) in Transport Planning and Management					
Course Title: INTEGRATED TRANSPORT	Code: TPM 315	Credit Hour: 2			
PLANNING AND OPERATIONS		Credit Unit:2			
	Pre-requisite:	Theoretical: 2 hours/week			
Year:1 Semester: 1		Practical 0 : hours/week			

Goal: The course is to enable students develop knowledge in inter-modal and multi-modal public transport planning and operations.

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Comprehend the meaning and nature of integrated transport planning and operations
- 2.0 Apply contemporary issues in multimodal transport planning
- 3.0 Appreciate the governance and equity of transport
- 4.0 Apply multimodal planning concepts and process
- 5.0 Evaluate transport, land use and urban form
- 6.0 Analyze travel patterns and behavior
- 7.0 Analyze transport demand management

PROG	RAMME: HIGHER NATION	AL DIPLOMA IN TRANSP	ORT PLANN	NING AND MANAGEMEN	T	
COUR	SE TITLE: INTEGRATED T	RANSPORT PLANNING &	C	OURSE CODE: TPM 315	CONTACT HOU	RS: 2-0-0
	ATIONS					
GOAL	: The course is to enable students	develop knowledge in inter-n	nodal and mul	ti-modal transport planning a	nd operations	
COUR	SE SPECIFICATION:	THEORETICAL CONTI	ENTS	PRACTI	CAL CONTENTS	
Genera	l objective 1.0: Comprehend the	meaning and nature of integra	ted transport p	planning and operations		
WK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation
			Resources	Objective	Activities	
1-2	1.1 Define integrated	i. Explain the nature and	Textbook;			Differentiate
	transport and transport	scope of integrated	journals and			between
	planning	transport in transport	periodicals			multimodal
	1.2 Define multimodal and	planning				and
	intermodal transport	ii. Discuss scope and nature	PowerPoint			intermodal
	1.3 Compare public transit	of multimodal and	presentation	nS		transport
	modes	intermodal transport				
	1.4 Explain the importance of	iii. Compare public transit				Appraise the
	integrated transport	modes and explain their				importance
	planning and operations.	merits and demerits				of integrated
		iv. Discuss the importance				transport
		of integrated transport				planning and
		planning and operations				operations
		in the society				
Genera	l Objective 2.0: Apply contempor	rary issues in multimodal trans	sport planning	·	•	·
3-4	2.1 Define multimodal	Explain multimodal	Textbook;			Discuss the
	transport planning	transport planning	journals and			contemporar

	2.2Explain multi-modal transportation planning concepts 2.3 Appraise contemporary issues in multimodal transport planning.	2.2Explain multi-modal transportation planning concepts 2.3 Appraise contemporary issues in multimodal transport planning.	periodicals	y issues in multimodal transport planning.
Genera	al Objective 3.0: Appreciate the go	overnance and equity of transp	ort	
5-6	3.1 Define transport	i. Explain transport	Textbook;	Discuss the
	governance	governance	journals and	roles of
	3.2 Explain the roles of	3.2 Explain the roles of	periodicals	stakeholders
	stakeholders involved in	stakeholders involved in		involvemen
	transport planning.	transport planning.		in transport
	3.3 Explain the laws,	3.3 Explain the laws,		planning
	functions and processes of	functions and processes of		
	transport organisation	transport organisation		
	3.4 Appraise political and	3.4 Appraise political and		
	institutional issues affecting	institutional issues		
	transport planning.	affecting transport		
	3.5 State strategy for social	planning.		
	equity through	3.5 State strategy for social		
	multimodal transport planning	equity through		
	1	multimodal transport		
		munimodai transport		

7-8	4.1 Explain concepts and	i. Explain concepts and	Textbook;		Explain the
	characteristics of conventional	characteristics of	journals and		contemporar
	transport planning	conventional transport	periodicals		y issues in
	4.2 Describe the types of	planning			multimodal
	multimodal transport	4.2 Describe the types of			transport
	operations	multimodal transport			operations
	4.3 Explain the contemporary	operations			
	issues in multimodal transport	4.3 Explain the			
	operations	contemporary issues in			
	4.4 Explain the importance of	multimodal transport			
	regional and	operations			
	intergovernmental	4.4 Explain the importance			
	coordination in multimodal	of regional and			
	transport operations	intergovernmental			
		coordination in multimodal			
		transport operations			
General	Objective 5.0: Evaluate transpor	t, land use and urban form			
9-10	5.1 Explain the relationship	i. Explain the relationship	Textbook;		Appraise the
	between transport and land	between transport and land	journals and		influence of
	use	use	periodicals		changes in
	5.2 Describe the tools used to	5.2 Describe the tools used			the built
	connect transport, land use	to connect transport, land			environment
	and urban form	use and urban form			on travel
	5.3 Explain the influence of	5.3 Explain the influence			behavior
	land use and transport	of land use and transport			
	planning practices on urban	planning practices on urban			Discuss the
	form	form			relationship

	5.4 Analyze the relative influence of changes in the built environment on travel behavior 5.5 Explain the tools used to transit developed communities from autocentric to multimodal mobility	5.4 Analyze the relative influence of changes in the built environment on travel behavior 5.5 Explain the tools used to transit developed communities from autocentric to multimodal mobility			between land use and transport planning
General	Objective 6.0: Analyze travel pa	atterns and behavior			
11-12	6.1 Define travel pattern and behavior 6.2 Explain theory of travel behavior 6.3 Compare theoretical and observed behavior 6.4 Analyze trends in travel pattern and factors influencing travel behavior. 6.5 Explain land use and transport management strategies	1 Explain travel pattern and behavior 6.2 Explain theory of travel behavior 6.3 Compare theoretical and observed behavior 6.4 Analyze trends in travel and factors influencing travel pattern and behavior. 6.5 Explain land use and transport management strategies	Textbook; journals and periodicals		Analyze trends in travel pattern and factors influencing travel behavior.

General Objective 7.0: Analyze transport demand management						
13-14	7.1 Describe the nature and	i. Explain the nature and	Textbook;			Discuss the
	profile of transport	profile of transportation	journals and			relevance of
	options	options-Non-motorised	periodicals			TDM in
	7.2 Define transport demand	transportation, Public				transport
	management	transit, Paratransit and non-				planning and
	7.3 Know collaborative	motorised transportation				management
	consumption models	ii. Explain transportation				
	7.4 Know transport system	demand and management				
	management and	iii. Explain collaborative				
	operations	consumption models- car				
	7.5 Identify methods to	sharing, bike sharing,				
	manage multimodal	Bikeshare, Carshare				
	transport system demand	iv. Know transportation				
	and potential benefits	system management and				
		operations- ITS adaptive				
		signals; Bluetooth				
		detection; Open-source				
		multimodal trip planning				
		v. Explain methods to				
		manage multimodal				
		transportation system				
		demand and potential				
		benefits				

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: TRANSPORT PLANNING	Code: TPM 316	Credit Hour: 3					
II		Credit Unit:2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 1		Practical 1 : hours/week					

Goal: The course is designed to give students knowledge on the purpose and importance of transport planning.

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Comprehend the key issues of transport planning
- 2.0 Apply travel survey methods to address transport planning issues
- 3.0 Apply trip demand forecasting models and estimation methods
- 4.0 Prepare Parking and Traffic Impact Assessment (TIA) Report
- 5.0 Comprehend the components of public transport systems
- 6.0 Evaluate public transport systems performance in transport planning
- 7.0 Apply transport policy for government intervention in transport planning

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT							
COURSE TITLE: TRANSPORT PLANNING II COURSE CODE: TPM 316 CONTACT HOURS: 0-0-0							
GOAL	: The course is to deepen the kno	wledge of students on the purp	ose and impor	tance of transport planning	1		
COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS							
General objective 1.0: Comprehend the key issues of transport planning							
WK Specific Learning Objective		Teachers Activities	Learning	Specific Learning	Teachers	Evaluation	
			Resources	Objective	Activities		
1	1.1 Define transport planning	i. Explain transport	Textbook;	Carry out a transport	Guide students	Describe the	
	concept	planning concept	journals and	planning process	through the	functions and	
	1.2 Explain the importance of	1.2 Explain the importance	periodicals		transport	constraints of	
	transport planning	of transport planning			planning	transport planning	
	1.3 Explain Transport	1.3 Explain Transport	PowerPoint		process	organizations	
	Planning Process	Planning Process	presentation				
	1.4 Describe the functions	1.4 Describe the functions					
	and constraints of transport	and constraints of transport					
	planning organizations	planning organizations					
	1.5 Explain the nature of	1.5 Explain the nature of					
	urban accessibility and	urban accessibility and					
	mobility	mobility					
Genera	Objective 2.0: Apply travel sur	l vey methods to address transpo	l ort planning iss	sues			
2-3	2.1 Explain travel survey	i. Explain travel survey	Textbook;	Conduct travel and	Guide students	Analyze the	
	process	process	journals and	traffic survey	to conduct	techniques for	
	2.2 Explain the rationales for	2.2 Explain the rationales	periodicals		travel and traffic	travel and traffic	
	travel and traffic survey	for travel and traffic survey	Manual		survey	survey	
	2.3 Analyze the techniques	2.3 Analyze the techniques	counter;				
]	for travel and traffic survey	for travel and traffic survey	writing				

	2.4 Appraise traffic Data	2.4 Appraise traffic Data	materials			
	sources, processing and	sources, processing and	Survey tools			
	interpretation	interpretation	-			
General Objective 3.0: Apply trip demand forecasting models and estimation methods						
4-5	3.1 Explain trip generation	Explain trip generation	Textbook;			Discuss trip
	model: Multiple linear	model: Multiple linear	journals and			generation, trip
	regression and Category	regression and Category	periodicals			distribution,
	analysis	analysis				modal split-end
	3.2 Explain trip distribution -	3.2 Explain trip				models and traffic
	Growth factor methods and	distribution - Growth factor				assignment
	Gravity model method	methods and Gravity				_
	3.3 Explain Modal split -Trip	model method				
	end models; Trip interchange	3.3 Explain Modal split -				
	model and Discrete choice	Trip end models; Trip				
	model	interchange model and				
	3.4 Explain traffic	Discrete choice model				
	assignment-All-or-nothing	3.4 Explain traffic				
	assignment, Incremental	assignment-All-or-nothing				
	assignment, and Equilibrium	assignment, Incremental				
	assignment	assignment, and				
		Equilibrium assignment				
General	Objective 4.0: Prepare Parking a	and Traffic Impact Assessment	(TIA) Report	ı	1	<u> </u>
6-7	4.1 Define parking and TIA	Define parking and TIA	Textbook;	Prepare of parking and	Guide the	Discuss the
	4.2 Explain parking types and	4.2 Explain parking types	journals and	Traffic Impact	students to	contents of
	characteristics in a typical	and characteristics in a	periodicals	Assessment technical	prepare parking	parking and TIA
	urban area	typical urban area		report	and Traffic	Report
	4.3 Explain the importance of	4.3 Explain the importance			Impact	

parking and TIA 4.4 Explain the contents of parking and TIA Report 4.5 Explain the relationship between TIA and transport planning 4.6 Apply Legal and statutory frameworks for TIA	of parking and TIA 4.4 Explain the contents of parking and TIA Report 4.5 Explain the relationship between TIA and transport planning 4.6 Apply Legal and statutory frameworks for TIA		assessment technical report	
General Objective 5.0: Comprehend the o	components of public transpor	t systems		
8-9 5.1 Define public transport system and classification 5.2 Explain planning for public transit and transport alternatives 5.3 Explain the features of public transport, bus transit- system, technology and operation 5.4 Explain the features of rail rapid transit-system, technology and operation 5.6 Explain the features of Ferry transit- System, technology and operation General Objective 6.0:	Define public transport system and classification 5.2 Explain planning for public transit and transport alternatives 5.3 Explain the features of public transport, bus transit- system, technology and operation 5.4 Explain the features of rail rapid transit-system, technology and operation 5.6 Explain the features of Ferry transit- System, technology and operation	Textbook; journals and periodicals		Explain planning for public transit and transport alternatives

10-11								
General	General Objective 6.0: Evaluate public transit system performance							
12	6.1 Explain the methods of	Explain the methods of	Textbook;			Present individual		
	performance evaluation	performance evaluation	journals and			case study on		
	6.2 Explain the key	6.2 Explain the key	periodicals			transit service		
	performance indicators for	performance indicators for				performance		
	public transport	public transport						
	6.3 Analyse transit capacity,	6.3 Analyse transit						
	frequency and headway	capacity, frequency and						
	6.4 Analyse the quality of	headway						
	transit service	6.4 Analyse the quality of						
		transit service						
General	Objective 7.0: Apply transport p	policy for government interven	tion in transport	planning				
13-14	7.1 Define Transport Policy	Explain Transport Policy	Textbook;			Explain the		
	7.2 Explain rationales for	7.2 Explain rationales for	journals and			content of		
	government's intervention in	government's intervention	periodicals			National		
	transport planning	in transport planning				Transport Policy		
	7.3 Appraise the nature of	7.3 Appraise the nature of						
	government intervention	government intervention						
	7.4 Evaluate National	7.4 Evaluate National						
	Transport Policy	Transport Policy						

Programme: Higher National Diploma (HND) in Transport Planning and Management					
Course Title: TRANSPORT AND ENVIRONMENT	Code: TPM 317	Credit Hour: 2			
ET (VIROT (IVIE) (I		Credit Unit:2			
	Pre-requisite:	Theoretical:2 hours/week			
Year:1 Semester: 1		Practical 0 : hours/week			

Goal: The course is to provide students with the required knowledge to understand the interrelationships of the environment and transport system

General Objectives:

- 1.0 Trace the historical attempt at protecting the environment and its resources for sustainable development
- 2.0 Analyze the Environmental Impact Assessment (EIA) of transport system
- 3.0 Comprehend the counterproductive nature of transport externalities on the environment
- 4.0 Appreciate the responsibilities of the institutional frameworks for environmental protection and management
- 5.0 Appraise the connection between Transport, Health and Climate Change
- 6.0 Analyze the emerging transport technologies for environmental protection and sustainability

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT

COURSE TITLE: TRANSPORTATION AND ENVIRONMENT COURSE CODE: TPM 317 CONTACT HOURS: 0-0-0

GOAL:The course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the environment and transportation system

COURSE SPECIFICATION:		THEORETICAL CONTI	ENTS	PRACTICAL CONTENTS		
WK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation
			Resources	Objective	Activities	
General	Objective 1.0: Trace the historic	cal attempt at protecting the er	nvironment and	l environmental movements		
3-4	1.1 Explain environment,	Explain environment,	Textbook;			Explain the
	environmental resources, their	environmental resources,	Journals			impact of
	classifications and importance	their classifications and	periodicals			human
		importance	Monograph			activities on
	1.2 Explain the goal and	1.2 Explain the goal and	Research			the
	factors influencing	factors influencing	report			sustainability
	environmental movements	environmental movements	Magazines			of the
	1.3Appraise the	1.3 Explain the	Websites			environment
	environmental protection	environmental protection				
	movements in the developed	movements in the				
	world	developed world				
	1.4Appraise the evolution of	1.4 Explain the evolution				
	environmental protection in	of environmental				
	Nigeria	protection in Nigeria				
	1.5 Outline the prospects and	Outline the prospects and				
	consequences of man	consequences of man				
	exploitation of the	exploitation of the				
	environment	environment				

7-8	2.1 Define Environmental	Explain Environmental	Textbook;		Discuss the
	Impact Assessment (EIA)	Impact Assessment (EIA)	journals and		importance of
	2.2 Explain the requirements	2.2Explain the	periodicals		Environmental
	for preparing EIA	requirements for preparing	(EIA)		Impact
	2.3 Explain the importance of	EIA	Research		Assessment
	EIA for transport projects	2.3 Explain the importance	Reports		(EIA) for a
	2.4 Explain the contents of	of EIA for transport			transport
	EIA Report	projects			project
	2.5Evaluate EIA reports	2.4 Explain the contents of			
		EIA Report			
		5Evaluate EIA reports			
General	Objective 3.0: Comprehend the	counterproductive nature of tr	ansport externalit	ies on the environment	,
9-10	3.1 Explain transport	Explain transport	Textbook;		Explain the
	externalities	externalities	Journals and		consequences
	3.2 Explain the consequences	Explain the consequences	periodicals		and
	and counterproductive	and remedial measures of	PowerPoint		counterproduct
	measures of transport	transport externalities on	presentation		ive measures
	externalities on the	the environment			of transport
	environment	Appraise the roles of			externalities on
	3.3 Appraise the roles of	transport in Climate			the
	transport in Climate Change	Change			environment
General	Objective 4.0: Appreciate the re-	sponsibilities of the institution	al frameworks fo	r environmental protection and manage	ement
11-12	4.1 Explain the institutional	Explain the institutional	Textbook;		Discuss the
	framework for environmental	framework for	journals and		institutional

framework for environmental protection in
protection in
Nigeria.
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Discuss the
relationship
between
transport and
climate change
and sustainability
Explain the
benefits and
shortcomings
of the
emerging
transport
technologies

technologies	iii. Discuss the emerging	
	transport technologies-	Explain the
	biofuels, LNG, Catalytic	concepts of
	converter, laminated	environmental
	windscreen; collapsible	sustainability
	steering; hybrid vehicles;	
	public transit; active	
	transport means	
	iv. Explain the benefits and	
	shortcomings of the	
	technologies	

Programme: Higher National Diploma (HND) in Transport Planning and Management						
	Code: TPM 318	Credit Hour: 2				
OPERATIONS AND MANAGEMENT		Credit Unit:2				
	Pre-requisite:	Theoretical: 2 hours/week				
Year:1 Semester: 1		Practical 0 : hours/week				

Goal: The course is to provide students with the knowledge and skills required to carry out rail transport operations and management

General Objectives:

- 1.0 Comprehend the development of rail transport
- 2.0 Appreciate the nature of railway operations and management
- 3.0 Analyze the components of rail system and standards
- 4.0 Appreciate train planning, operation and performance management
- 5.0 Analyze occupational hazards, health and safety measures in rail operations
- 6.0 Comprehend principles of railway economics

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT								
COURS	COURSE TITLE: RAIL OPERATIONS AND MANAGEMENT COURSE CODE: TPM 318 CONTACT HOURS: 0-0-0							
GOAL:	GOAL: The course is to provide students with the knowledge and skills required to carry out rail transport operations and management							
COURS	SE SPECIFICATION:	THEORETICAL CONTE	ENTS	PRACT	TICAL CONTENT	ΓS		
General	objective 1.0: Comprehend the	development of rail transport						
WK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation		
			Resources	Objective	Activities			
1-2	1.1 Explain the features and	Explain the features and	Textbook;			Discuss the		
	characteristics of rail	characteristics of rail	journals and			evolution of		
	transport	transport	periodicals			rail transport		
	1.2 Explain infrastructure and	1.2 Explain infrastructure	Monographs			in Nigeria		
	operational requirements of	and operational	PowerPoint					
	rail transport	requirements of rail	presentation					
	1.3 Trace the development of	transport						
	rail transport in Nigeria and	1.3 Trace the development						
	the world	of rail transport in Nigeria						
		and the world						

Gener	ral Objective 2.0: Appreciate the n	nature of railway operations an	d management	
3-4	2.1 Explain the management	Explain the management	Textbook;	Discuss the
	skills in railway operations	skills in railway operations	journals and	nature of rail
	2.2Appraise the nature of	2.2Appraise the nature of	periodicals	passenger and
	railway business organisation	railway business	Monographs	freight
	2.3 Explain railway operating	organisation	PowerPoint	services
	principles	2.3 Explain railway	presentation	
	2.4 Explain train movement &	operating principles		
	control systems	2.4 Explain train		
	2.5 Explain the nature of rail	movement & control		
	passenger and freight services	systems		
		2.5 Explain the nature of		
		rail passenger and freight		
		services		
Gene	ral Objective 3.0: Analyze the com	ponents of rail system and sta	ndards	
5-6	3.1 Explain the components	Explain the components of	Textbook;	Appraise the
	of rail system	rail system	journals and	functions of
	3.2 Explain the standards of	3.2 Explain the standards	periodicals	the
	rail components	of rail components	PowerPoint	component of
	3.3Analyze the functions of	3.3Analyze the functions	presentation,	the rail
	each component of the rail	of each component of the	video player	transport
	system	rail system	& projector	system
	3.4 Explain the maintenance	3.4 Explain the		
	procedure of each component	maintenance procedure of		
	of the rail system	each component of the rail		
	1	1	1	1

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Genera	l Objective 4.0: Appreciate train	planning, operation and perfo	rmance manager	l nent	
7-8	4.1 Explain train planning and operation 4.2 Explain train performance management 4.3 Explain operational planning	Explain train planning and performance management-timetable construction, types of train planning, types of train services, infrastructure implications. Explain train performance management 4.3 Explain operational planning	Textbook; journals and periodicals		Discuss train performance management
Genera	Objective 5.0: Analyze occupat	ional hazards, health and safe	ty measures in ra	il operations	
9-10	5.1 Analyze health, hazard and safety risks in rail operations 5.2 Explain the provisions for safety on the railway 5.3 Interpret general health and safety legislation. 5.4 Explain the duties of the employer 5.5 Explain the approved codes of practice and safety regulations	Analyze health, hazard and safety risks in rail operations 5.2 Explain the provisions for safety on the railway 5.3 Interpret general health and safety legislation. 5.4 Explain the duties of the employer 5.5 Explain the approved codes of practice and safety regulations	Textbook; journals and periodicals PowerPoint presentation		Discuss the provisions for safety on the railway

General	General Objective 6.0: Comprehend the principles of railway economics					
11-12	6.1Explain the importance of	1Explain the importance of	Textbook;			Discuss
	economics to railway business	economics to railway	journals and			sources of
	and operations	business and operations	periodicals			revenues and
	6.2 Analyze railway costs	6.2 Analyze railway costs				investments
	components	components				in railway
	6.3 Explain railway sources of	6.3 Explain railway				business
	revenues and investments	sources of revenues and				
	6.4 Appraise investment risk	investments				
	in railway business	6.4 Appraise investment				
		risk in railway business				

Programme: Higher National Diploma (HND) in Transport Planning and Management						
Course Title: STUDIO V: TRANSPORT	Code: TPM 319	Credit Hour: 3				
PLANNING DESIGN V (RAIL TERMINAL FACILITY PLANNING AND DESIGN)		Credit Unit:3				
	Pre-requisite:	Theoretical:1 hours/week				
Year:1 Semester: 1		Practical 2 : hours/week				

Goal: This course is designed to provide students with the appropriate skills to plan, design and inspect rail terminal facilities General Objectives:

- 1.0 Comprehend rail terminal facilities
- 2.0 Describe the inspection of rail network, railway yard, terminal building and other ancillary facilities
- 3.0 Apply safety regulation and rules on facilities within the rail terminal
- 4.0 Appraise the components of rail terminal facility and the considerations of planning and design factors
- 5.0 Interpret layout design, maps and master plan for rail terminal facility according to given constraints
- 6.0 Appreciate push-back, taxi operation, arrival and departure times

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PROGRAMME: HIGHER NATIONAL DIPLOMA IN TR COURSE TITLE: STUDIO V: TRANSPORT			COURSE CODE: TPM 319 CONTACT HOURS: 3		2	
			COURSE COL	DE. 1PM 319	CONTACT HOURS.	3
	NING DESIGN V (RAIL TE	RMINAL FACILITY				
PLAN	NING AND DESIGN)					
Goal: 7	This course is designed to pro	ovide students with the ap	propriate skills t	o plan, design and insp	ect rail terminal facilitie	es
	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS	PRAG	CTICAL CONTENTS	
	Specific Learning Objective	1.0: Comprehend rail terr	ninal facilities.			
Week	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Evaluation
1.	Characteristics of rail terminal facilities. 1.2 Explain the Functions of rail terminal facilities. 1.3 Apply spatial planning requirements for rail terminal facility planning and design	1.5 Explain the Functions of rail terminal facilities. 1.6 Apply spatial planning requirements for rail terminal facility planning and design	Books Journals Magazines CILT/CIoTA Bulletin			Discuss the Characteristi cs of rail terminal facilities.
	l Objective 2.0: Describe the			· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
2	2.1 Explain the Methods and Process of Inspecting rail station, facilities and other Terminal Facilities	Explain the methods and process of inspecting rails stations, terminus and building and other terminal Facilities.	Books Journals Manuals Base Maps Drawing Materials	Carry out the process of inspecting rail station, buildings and facilities	Guide students through the process of inspecting rail station, buildings and facilities	

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			Cameras			
			GPS etc.			
General	Objective 3.0: Apply safety	regulation and rules on fa	acilities within th	ne rail terminal.		
3	3.1 Apply safety,	Apply safety,	Books	Demonstrate the	Guide students to	Discuss
	regulation rules on	regulation rules on rail	Journals	usage of Personal	use the PPEs	safety,
	rail terminal facilities	terminal facilities	Magazines	Protective		regulation
	3.2 Explain types of	Explain types of	_	Equipment (PPEs)		rules on rail
	natural disaster that	natural disaster that	Bulletin	Equipment (1 1 23)		terminal
	affect rail	affect rail	Danotin			facilities
	infrastructure	infrastructure				ide intros
General	Objective 4.0: Appraise the		nal facility and the	he considerations of nla	I Inning and design factor	<u> </u>
4	4.1 Explain the	4.4 Explain the	Books	ic considerations of pic	anning and design factor	Explain the
, r	components of rail	components of rail	Journals			factors that
	terminal design.	terminal design.	Magazines			influence rail
	4.2 Explain the factors	4.5 Explain the factors	CILT/CIoTA			terminal
	that influence rail	that influence rail	Bulletin			design
	terminal design	terminal design	Dunctin			design
	4.3	terminal design				
General	Objective 5.0: Interpret layo	l out design mans and mast	l ter plan for rail to	<u>l</u> erminal facility accordi	no to given constraints	<u>l</u>
5	5.1 Explain the Plan,	Explain the Plan,	· •	5.1 Prepare plan	i. Guide students to	
	Design	Design	Journals	design and	prepare and	
	5.2 Interpret layout	Interpret layout design,	Magazines	interpret Layout,	interpret a Layout,	
	design, maps and	maps and master plan	Manuals	master plan, and	master plan, and	
	master plan for rail	for rail terminal.	CILT/CIoTA	maps for a rail	maps for a rail	
	terminal.	101 fail tellillial.	Bulletin	terminal.	terminal	
	Cilliniai.		Drone,	Cillinai.	Cillinai	
			Dione,			

			Base Maps, GPS, GIS, TransCAD, Cameras Manuals		
Genera	l Objective 6.0: Appreciate p	ush-back, taxi operation,	arrival and depar	ture times	
6	6.1 Appraise the	Appraise the push-	Books		Appraise the
	pushback and taxi	back and taxi	Journals		push-back
	Operation in rail facility	Operation in rail			and taxi
	Design.	facility Design.			Operation in
	6.2 Analyze the arrival	Analyze the arrival			rail facility
	and departure time of	and departure time of a			Design.
	a train operation	train operation			

YEAR 1 SEMESTER 2

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: TRAFFIC ENGINEERING Code: TPM 321 Credit Hour: 3							
		Credit Unit:2					
	Pre-requisite:	Theoretical:2 hours/week					
Year:1 Semester: 2		Practical 1 : hours/week					

Goal: This course is designed to provide students with the knowledge and skills required to operate and manage traffic and intelligent transport systems (ITS)

General Objectives:

- 1.0 Analyze the physical, socio-economic and environmental considerations and elements of rail/road design
- 2.0 Analyze rail/road capacity, quality of flow and factors affecting rail/road planning and management
- 3.0 Comprehend rail/road traffic furniture
- 4.0 Explore intelligent transport system (ITS) and its influence on users travel behaviour
- 5.0 Appreciate traffic and drivers information as well as traffic flow theory
- 6.0 Comprehend road design and alignment, construction materials and methods (delete)

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT						
COURSE TITLE: TRAFFIC ENGINEERING	COURSE CODE: TPM 321	CONTACT HOURS: 3				
Goal: This course is designed to provide students with the knowledge and skills required to operate and manage traffic and intelligent						

transpo	rt systems (ITS)						
	COURSE SPECIFICATIONS: THEORETICAL CONTENTS PRACTICAL CONTENTS						
	Specific Learning Objective	1.0: Understand Rail/Roa	d Transport Plan	ning and Traffic Surve	y		
Week	Specific Learning		Learning	Specific Learning		Evaluation	
	Objective		Resources	Objective	Activities		
General	Objective 1.0: Analyze the	physical, socio-economic	and environmen	tal considerations and e	elements of rail/road	l design	
2	1.1 Explain traffic	Explain the physical,	Books			Discuss the	
	engineering and its	socio-economic and	Journals			factors	
	importance	environmental factors	Magazines			influencing the	
	1.2 Explain the physical,	and considerations	CILT/CIoTA			design of railway	
	socio-economic and	influencing the design	Bulletin			and highway.	
	environmental factors	of railway and	Websites				
	and considerations	highway.					
	influencing the design	Explain the elements					
	of railway and	in designing railway					
	highway.	and highway.					
	1.3 Explain the elements						
	in designing railway						
	and highway.						
General	Objective 3.0 Analyze rail/r	road capacity, quality of fl	ow and factors a	affecting rail/road planr	ning and managemen	nt	
3	3.1Analyze the existing	3.1 Analyze the	Books	Demonstrate how	Guide students	Discuss the	
	and proposed railway,	existing and	Journals	the traffic flow on	on how to	factors affecting	
	urban road and	proposed railway,	traffic counter	roads and railways	determine traffic	rail/road	
	highways capacity.	urban road and		is determined and	flow and	planning,	
	3.2 Explain the quality of			interpreted	interpret its	construction, and	
	flow on roads and	3.2 Explain the quality			analysis	management.	
	railways.	of flow on roads					
	3.3 Explain the factors	and railways.					
		1 -					
	planning, construction,	affecting rail/road					

and management.	planning, construction, and management.		
	una management.		

Gener	al Objective 3.0: Comprehend	rail/road traffic furniture			
4	3.1 Explain rail/road	Explain traffic	Books		Discuss the
	traffic furniture	furniture	Journals		implications of
	3.2 Describe the	Describe the	Magazines		rail/road
	importance of rail/road	importance of rail/road	Engineering		furniture
	traffic furniture	traffic furniture	Manuals		on transport
	3.3 Explain the	Explain the	CILT/CIoTA		planning and
	implications of	implications of	Bulletin		management.
	rail/road furniture	rail/road furniture			
	on transport planning	on transport planning			
	and management.	and management.			
Gener	al Objective 4.0: Explore intel	ligent transport system (I'	TS) and its influe	ence on users travel behavio	our
5	4.1 Define intelligent	4.4 Define intelligent	Books		Discuss the
	transport system (ITS)	transport system	Journals		impact and
	4.2 Explain the type of	(ITS)	Magazines		relevance of ITS
	intelligent transport	4.5 Explain the type of	CILT/CIoTA		devices on users
	system devices in	intelligent	Bulletin		travel behaviour.
	transport engineering.	transport system			
	4.3 Appraise the impact	devices in			
	and relevance of ITS	transport			
	devices on users	engineering.			
	travel behaviour.	Appraise the impact			
		and relevance of			
		ITS devices on			
		users travel			
		behaviour.			
Gener	al Objective 5.0: Appreciate to	affic and drivers information	tion as well as tra	affic flow theory	·
7	5.1 Explain the meaning	6.1 Explain the	Books		Discuss the
	and constituent of traffic	meaning and	Journals		relevance of
	and drivers information.	constituent of	Books		traffic flow
		traffic and drivers	Journals		theory in traffic

	5.2Explain the principles	information.	Magazines		engineering
	and applications of traffic	6.2 Explain the	CILT/CIoTA		
	flow theory	principles and	Bulletin		
	5.3Explain the relevance	applications of			
	of transport and traffic	traffic flow theory			
	engineering.	Explain the relevance			
		of transport and traffic			
		engineering.			
General	Objective 6.0: Comprehend	road design and alignmen	nt, construction r	naterials and methods	
8	6.1 Explain the types of	Explain the types of	Books		Explain the
	road design, alignment	road design, alignment	Journals		methods and
	6.2Explain the methods	Explain the methods	Books		techniques of
	and techniques of road	and techniques of road	Journals		road design
	design	design	Magazines		
	6.3Explain the materials	Explain the materials	CILT/CIoTA		
	used in rail and road	used in rail and road	Bulletin		
	construction.	construction.			

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: TRANSPORT INSURANCE	Code: TPM 322	Credit Hour:2					
		Credit Unit:2					
	Pre-requisite:	Theoretical:2 hours/week					
Year:1 Semester: 1		Practical 0 : hours/week					

Goal: This course is designed to provide students with the knowledge and skills of insurance policy required in transport operation and management

General Objectives:

- 1.0 Comprehend the meaning, functions and importance of transport insurance
- 2.0 Explore the insurance market and policies
- 3.0 Comprehend the application of the insurance concepts in transport investment
- 4.0 Apply the principle of contract to transport insurance
- 5.0 Appreciate Utmost Good Course, Proximate Cause, Indemnity, Subrogation and Contribution

PROGI	RAMME: HIGHER NATIC	NAL DIPLOMA IN TR	ANSPORT PL	ANNING A	ND MAN	AGEMENT	
C	COURSE TITLE: TRANSPORT INSURANCE COURSE CODE: TPM 322 CONTACT HOURS: 2						
Goal: T	This course is designed to pr	ovide students with the k	nowledge and s	kills of insu	rance polic	cy required in transpor	t operation and
manage	ement		_				_
	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS		PRAG	CTICAL CONTENTS	
Genera	l Objective 1.0: Comprehend	the meaning, functions a	nd importance of	transport in	nsurance		
Week	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Objective	Learning	Teachers Activities	Evaluation
1.	1.1 Define transport	Define transport	Books				Discuss the
	insurance 1.2 Explain the functions and importance of	insurance Explain the functions and importance of	Journals Magazines CILT/CIoTA				functions and importance
	transport insurance.	transport insurance.	Bulletin				of transport
	1.3 Trace the history of insurance in transport.	Trace the history of insurance in transport	Research Report				insurance
Genera	l Objective 2.0: Explore the i						
Genera	2.1 Define transport	2.4 Define transport	Books				Discuss the
	insurance market and	insurance market	Journals				functions of
	policy	and policy	Magazines				insurance
	2.2 Explain the various	2.5 Explain the various					market and
	forms of transport	forms of transport					their
	insurance policies	insurance policies					intermediarie
	2.3 Explain the functions	Explain the functions					S.
	of insurance market	of insurance market					
	and their	and their					
	intermediaries.	intermediaries					

Genera	l Objective 3.0: Comprehend	the application of the ins	urance concepts	in transport investment	;	
4	3.1 Explain insurance concept in transport 3.2 Explain the application of insurance concepts in transport 3.3 Explain the role of insurance in transport investment	Explain insurance concept in transport Explain the application of insurance concepts in transport Explain the role of insurance in transport investment	Books Journals Magazines CILT/CIoTA Bulletin Research Report			Discuss the role of insurance in transport investment
General	Objective 4.0: Apply the pri	inciple of contract to trans	sport insurance	•	<u> </u>	
5	 4.6 Explain transport insurance contract 4.7 Apply the principle of insurance contract in transport 4.8 Explain transport insurance premium 	Explain transport insurance contract Apply the principle of insurance contract in transport Explain transport insurance premium	Books Journals Magazines CILT/CIoTA Bulletin Research Report			Discuss the principle of insurance contract in transport
General	Objective 5.0: Appreciate U	Itmost Good Course, Prox	cimate Cause, Inc	demnity, Subrogation a	nd Contribution	
6	5.1 Explain the Principles of Utmost Good Course, 5.2 Explain Proximate Cause, 5.3 Explain Indemnity, 5.4 Explain Subrogation 5.5 Explain Contribution	Explain the Principles of Utmost Good Course, 5.2 Explain Proximate Cause, 5.3 Explain Indemnity, 5.4 Explain Subrogation 5.5 Explain Contribution	Books Journals Magazines CILT/CIoTA Bulletin Research			Discuss Indemnity, Subrogation and Contribution

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: LAW OF BUSINESS AND	Code: TPM 323	Credit Hour: 2					
CARRIAGE		Credit Unit:2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 2		Practical: 0 hours/week					

Goal: This course is designed to provide students with the knowledge and skills of the laws of business and carriage in transport operation

General Objectives:

- 1.0 Comprehend the Law of Carriage of passengers, by land, sea and air
- 2.0 Apply transport regulations on carriage of goods by land, sea and air-
- 3.0 Recognize the rights and duties of a Common carrier
- 4.0 Appreciate the documents used in the Contract of Carriage
- 5.0 Apply the Law of Agency and Cabotage Law in transport operation
- 6.0 Explore the steps in the incorporation of a transport company

PROGR	RAMME: HIGHER NATIO	ONAL DIPLOMA IN TI	RANSPORT PL	ANNING A	AND MAN	AGEMENT		
С	OURSE TITLE: Law of Bus	iness and Carriage	COURSE COL	E: TPM 32	3	CONTACT HOU	RS: 2-0-0	
Goal: T	Goal: This course is designed to provide students with the knowledge and skills of the laws of business and carriage in transport operation							
	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS		PRAG	CTICAL CONTEN	ΓS	
General	Objective 1.0: Comprehend	the Law of Carriage of p	assengers, by lan	d, sea and a	ir			
Week	Specific Learning	Teachers Activities	Learning	Specific	Learning	Teachers	Evaluation	
	Objective		Resources	Objective		Activities		
1.	1.1 Explain land, sea and	Explain land, sea and	Books				Discuss the law	
	air transport	air transport	Journals				of carriage of	
	1.2 Appraise the law of	Appraise the Law of	Acts				passenger by sea	
	carriage of passenger	Carriage of Passenger						
	by land,	by Land,						
	1.3 Appraise the law of	Appraise the law of						
	carriage of passenger	carriage of passenger						
	by sea	by Sea						
	1.4 Explain the law of	Explain the law of						
	carriage of passengers	carriage of passengers						
	by air	by Air						
General	Objective 2.0 Apply transpo			d, sea and a	ir			
	2.1 Explain the regulation	Explain the regulation	Books				Discuss the	
	for the Carriage of	for the Carriage of	Journals				regulation for the	
	goods by land	goods by Land,	Magazines				carriage of goods	
	2.2 Explain the regulation	Explain the regulation	CILT/CIoTA				by air	
	for the carriage of	for the Carriage of	Bulletin					
	goods by sea	goods by sea,						
	2.3 Explain the regulation	Explain the regulation						
	for the carriage of	for the Carriage of						
	goods by air	goods by air						

Gener	ral Objective 3.0: Recognize th	ne rights and duties of a co	ommon carrier		
3	3.1 Define a common	Explain a common	Books		Discuss the
	carrier	carrier	Journals		rights and duties
	3.2 Explain the rights of a	Explain the rights of a	Magazines		of a common
	common carrier	common carrier			carrier
	3.3 Explain the duties of a	Explain the duties of a			
	common carrier	common carrier			
Gener	ral Objective 4.0: Appreciate the	he documents used in the	contract of carria	age	
4	4.1 Define transport	Explain a transport	Books		Discuss the
	document	document	Journals		importance of
	4.2 Explain the types of	Explain the types of	Sample		the transport
	documents used in a	documents used in a	documents		documents used
	transport contract	transport contract			in the contract of
	4.3 Explain the	Explain the			carriage
	importance of the	importance of the			
	transport documents	transport documents in			
	in 4.2 above	4.2 above			
	ral Objective 5.0: Apply the La	w of Agency and cabotag	ge law in transpo	rt	
5	5.1 Define law of agency	Explain agency law	Books		Discuss the law
	and cabotage	and cabotage	Journals		of agency and its
	5.2 Explain the law of	Explain the law of	Magazines		application in
	agency and its	agency and its	Cabotage Act		transport
	application in	application in transport			operation.
	transport operation.	operation.			
	5.3 Explain the principles	Explain the principles			
	of cabotage law	of cabotage law			
G	eneral Objective 6.0: Explore			ort company	
	6.1Explain company	Explain company	Books		Discuss the
	incorporation	incorporation	Journals		process of a
	6.2 Explain the types of	Explain the types of	Magazines		transport
	incorporation of a	incorporation of a			company

transport company	transport company		incorporation
6.3 Explain the process of	Explain the process of		
a transport company	a transport company		
incorporation	incorporation		

Programn	Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course	Title:	FREIGHT	TRANSPORT	Code: TPM 324	Credit Hour: 2				
PLAN	INING AN	D MANAGEM	IENT		Credit Unit:2				
				Pre-requisite:	Theoretical: 2 hours/week				
Year:1 S	emester: 2				Practical: 0 hours/week				

Goal: The course is designed to provide students with the knowledge and skills to enable them practice freight transport planning and management

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Appreciate freight transport systems, freight planning, freight management and vehicle maintenance.
- 2.0 Apply logistics management in freight planning
- 3.0 Apply intelligent transport system ITS to facilitate freight transport
- 4.0 Comprehend urban freight transport and city logistics
- 5.0 Recognize the roles of seaports, airports and free trade zones
- 6.0 Explore the factors influencing freight distribution and flow

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TR	RANSPORT PLANNING AND MAN	AGEMENT
COURSE TITLE: FREIGHT TRANSPORT PLANNING	COURSE CODE: TPM 324	CONTACT HOURS: 2-0-0
AND MANAGEMENT		
	4 4 4 4 4 4 4	

Goal: The course is designed to provide students with the knowledge and skills to enable them practice freight transport planning and management

	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS	PRA	CTICAL CONTENTS	
General	Objective 1.0: Appreciate fr	reight transport systems, f	reight planning,	freight management ar	nd vehicle maintenance.	
Week	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective		
1.	1.1 Explain freight	Explain freight	Books			Discuss the
	transport systems;	transport systems;	Journals			freight
	1.2 Explain freight	Explain freight	Magazines			transport
	planning,	planning,				systems
	1.3 Explain freight	Explain freight				
	management.	management.				
	1.4 Explain vehicle	Explain vehicle				
	maintenance policies	maintenance policies				
	Objective 2.0: Apply logisti	cs management in freight	planning			
2	2.1 Define freight	Explain freight	Books			Discuss the
	planning	planning	Journals			concepts of
	2.2 Explain Freight	Explain freight	Magazines			Freight
	Logistics management	logistics management	CILT/CIoTA			Logistics
	2.3 Apply the policies of	apply the policies of	Bulletin			management
	freight transport and	freight transport and				
	logistics management.	logistics management.				
General	Objective 3.0: Apply intellig	gent transport system (ITS	S) to facilitate fre	eight transport		
3	3.1 Explain intelligent	Explain Intelligent	Books			Discuss the
	transport system (ITS)	Transport System	Journals			application
	3.2 Describe the use of	(ITS)				of ITS in
	intelligent transport	Explain the use of				Freight
	system in freight transport	Intelligent Transport				Logistics
	3.3 Expalin the	System in freight				Management
	application of ITS in	transport				
	freight logistics	Expalin the application				
	management	of ITS in Freight				

		Logistics Management				
General	Objective 4.0: Comprehend	urban freight transport ar	nd city logistics		l	l
4	 4.1 Explain urban freight transport 4.2 Explain the concepts of city logistics. 4.3 Explain the relationship between urban freight transport 	Explain urban freight transport explain the concepts of city logistics. Explain the relationship between urban freight transport	Books Journals Magazines Engineering Manuals CILT/CIoTA Bulletin			Discuss the relationship between urban freight transport and city logistics practices
	and city logistics practices	and city logistics practices				
General	l Objective 5.0: Recognize th	1	ts and free trade	zones		
5	5.1 Explain the roles of seaports and airports in freight transport 5.2 Explain the roles of free trade zones in freight transport 5.3 Explain the roles of collection and sorting units in freight transport, 5.4 Explain the roles of Consolidation and Distribution Units in Freights Operations.	Explain the roles of: seaports, airports, free trade zones, collection and sorting units in freight transport Explain the roles of consolidation and distribution units in freights operations.	Books Journals Magazines CILT/CIoTA Bulletin			Discuss the roles of collection and sorting units in freight transport,

Genera	General Objective 6.0: Explore the factors influencing freight distribution and flow.						
6	6.1 Explain freight	Explain freight	Books			Discuss the	
	distribution and flow	distribution and flow	Journals			factors for	
	6.2 Explain the factors for	Explain the factors for	Magazines			efficient	
	efficient freight	efficient freight	CILT/CIoTA			freight	
	distribution and flow	distribution and flow,	Bulletin			distribution	
	6.3 Explain modal choice	Explain modal choice				and flow	
	and network distribution	and network					
	for freight transport	distribution for freight					
		transport					

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: FLEET OPERATIONS AND	Code: TPM 325	Credit Hour: 2					
MANAGEMENT		Credit Unit: 2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 2		Practical: 0 hours/week					

Goal: This course is designed to provide students with adequate knowledge and skills for effective fleet operations and management General Objectives:

- 1.0 Comprehend fleet operation, drivers and vehicle management
- 2.0 Appreciate fleet loading system and load security
- 3.0 Analyse fleet accident prevention methods, safety and security measures
- 4.0 Explore vehicle selection, vehicle acquisition and financing
- 5.0 Appreciate driving skills education and training
- 6.0 Analyse fleet maintenance cost, budgeting and insurance
- 7.0 Comprehend storage/warehouse system and fuel purchase, monitoring and consumption control

PROGE	RAMME: HIGHER NATIO	ONAL DIPLOMA IN TI	RANSPORT PL	ANNING A	AND MAN	AGEMENT	
CO	OURSE TITLE: FLEET OP	ERATIONS AND	COURSE CODE: TPM 325 CONTACT HO		CONTACT HOURS:	RS: 2-0-0	
	MANAGEME	NT					
Goal: T	his course is designed to pro	vide students with adequa	ite knowledge an	d skills for	effective fle	eet operations and man	agement
COURS	SE SPECIFICATIONS: THE	CORETICAL CONTENTS	S		PRAC	CTICAL CONTENTS	
General	l Objective 1.0: Comprehend	fleet operation, drivers a	nd vehicle manag	gement			
Week	Specific Learning	Teachers Activities	Learning	Specific	Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective			
1.	1.1 Explain fleet	Explain fleet operation	Books				Discuss the
	operation	Explain driver	Journals				elements of
	1.2 Explain driver	management	Magazines				vehicle
	management	Explain vehicle	CILT/CIoTA				management
	1.3 Explain the elements	utilization, routing and	Bulletin				
	of vehicle	scheduling systems.	Sample				
	management		logbook				
	Objective 2.0: Appreciate lo			eration			
2	2.1 Explain loading	Explain loading	Books				Discuss the
	system	system	Journals				types of
	2.2 Explain load security	Explain load security					Loading
	2.3 Explain the types of	Explain the types of					System and
	loading system	loading system					Load
	2.4 Apply load security	Apply load security					Security
	measures.	measures.					Measures.
	Objective 3.0: Analyse fleet			security mea	asures		T
3	3.1 Define fleet accident,	Explain fleet accident,	Books				Discuss fleet
	safety and security	safety and security	Journals				accident,
	3.2 Analyze the accident	Analyze the accident					safety and
	prevention methods	prevention methods,					security
	3.3 Explain fleet safety	explain fleet safety					
	procedures	procedures					

	T		Т	ı	<u> </u>	
	3.4 Describe fleet	Describe fleet security				
	security measures.	measures.				
General Objective 4.0: Explore vehicle selection, vehicle acquisition and financing						
4	4.1 Explain the principles	Explain the principles	Books			Discuss the
	of vehicle selection	of vehicle selection	Journals			sources and
	4.2 Appreciate the	Appreciate the				requirements
	methods of vehicle	methods of vehicle				of vehicle
	acquisition	acquisition				financing
	4.3 Explain the sources	Explain the sources				_
	and requirements of	and requirements of				
	vehicle financing	vehicle financing				
General	Objective 5.0: Appreciate d		training			
5	5.1 Explain driving skills	Explain driving skill	Books			Discuss the
	education	education	Journals			requirements
	5.2 Explain driving skill	Explain driving skill	Journals			and
	training	training				importance
	5.3 Explain the	Explain the				of driving
	requirements and	requirements and				skills
	importance of driving	importance of driving				SKIIIS
	skills	skills				
General	l Objective 6.0: Analyze flee	2	ting and insuran	ce.		
6	6.1 Explain fleet	Explain fleet	Books			Discuss fleet
	maintenance cost	maintenance cost	Journals			maintenance
	6.2 Appreciate fleet	Appreciate fleet	Magazines			cost and
	budgeting	1.1	iviagazines			budgeting
	6.3 Explain fleet	budgeting				oudgetting
	insurance liabilities.	Explain fleet insurance				
	misurance macrimes.	liabilities.				
Canaral	 Ohioativa 7.0: Campachand		m and fival name	aga manitarina and as	ngumntian aantral	
General Objective 7.0: Comprehend storage/warehouse system and fuel purchase, monitoring and consumption control						

7	7.1Explain the	Explain the	Books		Discuss fuel
	components of a	components of a	Journals		Monitoring
	warehouse System.	warehouse system.			and
	7.2 Describe the	Describe the			Consumption
	procedures for fuel	procedures for fuel			Control.
	purchase/procurement	purchase/procurement			
	7.3 Explain fuel	Explain fuel			
	monitoring and	monitoring and			
	consumption control.	consumption control.			

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: TRANSPORT FOR SPECIALIZED	Code: TPM 326	Credit Hour: 2					
NEEDS		Credit Unit:2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 2		Practical: 0 hours/week					

Goal: This course is designed to provide students with the knowledge and skills required for planning the transport systems for specialized needs

General Objectives:

- 1.0 Explore the forms of disability and their special mobility needs
- 2.0 Comprehend the peculiar mobility challenges of the disadvantaged and vulnerable group
- 3.0 Explore the relationship between disability and transport
- 4.0 Analyze the various design of transport vehicles for special people
- 5.0 Establish the role of government, private agencies and non-governmental organization in transport for the disabled or special people
- 6.0 Appreciate the responsibility of transport stakeholders to people with special needs

PROG.	RAMME: HIGHER NATIO	ONAL DIPLOMA IN T	RANSPORT PI	ANNING.	AND MAN	AGEMENT	
COU	RSE TITLE: TRANSPORT NEEDS	FOR SPECIALIZED	COURSE COI	DE: TPM 32	6	CONTACT HOURS:	2-0-0
Goal: T	This course is designed to pro	vide students with the kno	l owledge and skil	lls required	for planning	the transport systems	for specialized
needs	ins course is designed to pro	vide stadents with the Kir	owiedge and skin	iis required	ror praiming	5 the transport systems	Tor specialized
	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS		PRAG	CTICAL CONTENTS	
Genera	ll Objective 1.0: Explore the f	forms of disability and the	eir special mobili	ity needs			
Week	Specific Learning		Learning	Specific	Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective			
1.	1.1 Define disability	Explain disability	Books				Discuss
	1.2 Explain disability	Explain disability	Journals				disability
	mobility	mobility					and
	1.3 Explain the forms of	Explain the forms of					disability
	Disability	Disability					mobility
	1.4 Analyze the special	Analyze the special					
	mobility needs.	mobility needs.					
Genera	l Objective 2.0: Comprehend	the peculiar mobility cha	llenges of the di	sadvantaged	l and vulner	rable group	
2	2.1 Explain	Explain disadvantaged	Books				Discuss the
	disadvantaged group	group	Journals				mobility
	2.2 Explain Vulnerable	Explain vulnerable	Magazines				challenges of
	group	group and the peculiar					the
	2.3 Recognize the	mobility challenges					vulnerable
	peculiar mobility						and
	challenges of the						disadvantage
	vulnerable and						d group
	disadvantaged group.						
Genera	l Objective 3.0: Explore the I	Relationship between Disa	ability and Trans	sport			
3	3.1 Explain transport	Explain transport	Books				Discuss the
	disability	disability	Journals				factors for
	3.2 Explain the factors for	Explain the factors for					the choice of

	.1 1	.1 1 :		T		
	the choice of transport	the choice of transport				transport for
	for disabled persons	for disabled persons				disabled
	3.3 Analyze the	Analyze the				persons
	relationship between	relationship between				
	disability and	disability and				
	Transport.	Transport.				
General	Objective 4.0: Analyze the	various design of transpor	t vehicles for spe	ecial people		
4	4.1 Explain transport	Explain transport	Books			Discuss the
	vehicle for special	vehicle for special	Journals			designs of
	needs	need				transport
	4.2 Explain the various	Explain the various				vehicles for
	design of transport	design of transport				special
	vehicles for special	vehicles for special				people
	people	people				
	4.3 Trace the design	Trace the design				
	process for special	process for special				
	need vehicles	need vehicles				
General	Objective 5.0: Establish the	he roles of government.	private agencie	s and non-government	al organizations in tra	nsport for the
	d or special people		F8	2 Ba /		
5	5.1 Explain the roles of	Explain the roles of	Books			Discuss the
	government in	Government in	Journals			roles of
	transport for the	Transport for the	Magazines			Government
	disabled or special	Disabled or Special	CILT/CIoTA			in Transport
	people.	People.	Bulletin			for the
	5.2 Explain the roles of	Explain the roles of	Builetin			Disabled or
	private agencies in	Private Agencies in				Special Special
	transport for the	Transport for the				People.
	disabled or special	Disabled or Special				i copic.
	people.	People.				
	* *	l *				
	5.3 Explain the roles of	Explain the roles of Non-Governmental				
	Non-Governmental	Non-Governmental				

Organizations in	Organizations in		
Transport for the	Transport for the		
Disabled or Special	Disabled or Special		
People.	People.		

Genera	Objective 6.0: Appreciate to	he responsibility of transp	ort stakeholders	to people with special i	needs	
6	6.1 Explain the	Explain the	Books			Discuss the
	responsibilities of	responsibilities of	Journals			duties of
	drivers for people	drivers for people with	Magazines			safety and
	with special needs	special needs	CILT/CIoTA			traffic
	6.2 Explain the duties of	Explain the duties of	Bulletin			officers for
	safety and traffic	Safety and traffic				people with
	officers for people	officers for people				special needs
	with special needs	with special needs				
	6.3 Apply the transport	apply the transport				
	policies and laws on	policies and laws or				
	people with special	people with special				
	needs.	needs.				
	6.4 Apply the safety	Explore the safety				
	measures of transport	measures of transport				
	for special people	for special people				
	while on transit.	while on transit.				

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: RESEARCH METHODS IN Code: TPM 327 Credit Hour: 2							
TRANSPORT PLANNING AND MANAGEMENT		Credit Unit:2					
	Pre-requisite:	Theoretical:2 hours/week					
Year:1 Semester: 2		Practical: 0 hours/week					

Goal: This course is designed to provide students with knowledge and techniques to conduct research in transport planning and management

General Objectives:

- 1.0 Appreciate the purpose and importance of research in transport planning and management
- 2.0 Recognize the types, characteristics of research designs and processes
- 3.0 Apply the relationship between research methods, data and research problems
- 4.0 Comprehend the characteristics of research techniques, sampling methods, procedure, and sample size.
- 5.0 Appraise the procedure for writing research proposal and report
- 6.0 Apply hypotheses, concepts, theory and models in transport research

PROGI	RAMME: HIGHER NATI C	NAL DIPLOMA IN TR	RANSPORT PL	ANNING A	ND MAN	AGEMENT	
	OURSE TITLE: RESEARC		COURSE COL	DE: TPM 327	7	CONTACT HOURS:	2-0-0
	ANSPORT PLANNING AN						
Goal:	This course is designed to	provide students with l	knowledge and	techniques	to conduct	t research in transpor	t planning and
manage							
	COURSE SPECIFICATION					CTICAL CONTENTS	
Genera	l Objective 1.0: Appreciate the	ne purpose and importanc	e of research in t	ransport plai	nning and 1	management	
Week	Specific Learning	Teachers Activities	Learning	Specific	Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective			
1.	1.1 Explain the purpose	Explain the purpose of	Books				Discuss the
	of research in	research in transport	Journals				importance
	transport	Explain the					of Research
	1.2 Explain the	importance of					Methods in
	importance of	Research Methods in					Transport
	Research Methods in	Transport Planning					Planning and
	Transport Planning	and Management.					Management
	and Management.	Explain the need for					
	1.3 Explain the need for	research in transport					
	research in transport	planning					
	planning						
Genera	Objective 2.0: Explore the t		f research philos	ophy, design	ns and proc	cesses	
2	2.1 Explain the	Explain the	Books				Discuss the
	characteristics of	characteristics of	Journals				Process of a
	research philosophy	Research Philosophy	Magazines				transport
	2.2 Explain the types of	Explain the types of	CILT/CIoTA				research
	transport research	transport research	Bulletin				design
	designs	Designs					
	2.3 Explain the process of	Explain the Process of					
	a transport research	a transport research					

design.	design.		

Genera	Objective 3.0: Apply the rel	lationship between research	ch methods, data	and research problems	
3	3.1 Explain transport research methods, 3.2 Explain the nature transport research data 3.3 Formulate transport research problems. 1 Objective 4.0: Comprehend 4.1 Explain the types of Research Techniques in	Explain transport Research Methods, Explain the nature transport research data Formulate transport research problems. the characteristics of rese Explain the types of Research Techniques	Books Journals		Discuss the types of
	transport 4.2 Explain Sampling Methods used in transport research, 4.3 Apply the Procedures for selection of Sample Size in a transport research. 4.4Explain the advantages and disadvantages of transport research.	in transport Explain Sampling Methods used in transport research, Apply the Procedure for selection of Sample Size in a transport research. Explain the advantages and disadvantages of Transport Research.			Research Techniques in transport and Sampling Methods used in transport research,
Genera	l Objective 5.0: Appraise the	procedure for writing res	earch proposal a	nd report	1
5	5.1 Explain proposal in transport research 5.2 Explain the contents of a transport research report 5.3 Analyze the	Explain Research Proposal in transport research and Explain the contents of a transport research Report	Books Journals		Discuss Proposal and report writing in transport research

	procedures for writing research proposal and Project Report	Analyze the procedures for Writing Research Proposal and Project Report			
Genera	l Objective 6.0: Apply hypoth	heses, concepts, theory an	d models in trans	sport research	
6	6.1 Formulate hypotheses	Formulate hypothesis	Books		Discuss the
	in transport research	in transport research	Journals		process of
	6.2 Explain the relevance	Explain the relevance			formulating
	of Concepts and	of Concepts and theory			hypotheses
	theory in transport	in transport research,			in transport
	research,	Explain the			research
	6.3 Explain the	importance of models			
	importance of models	in transport research			
	in transport research	_			

Programme: Higher National Diploma (HND) in Transport Planning and Management						
Course Title: TRANSPORT POLICY AND ADMINISTRATION	Code: TPM 328	Credit Hour: 2				
ADMINISTRATION		Credit Unit:2				
	Pre-requisite:	Theoretical: 2 hours/week				
Year:1 Semester: 2		Practical 0 : hours/week				

Goal: The course is designed to provide the students with knowledge and skills in transport policy and administration

General Objectives:

- 1.0 Comprehend transport policy and administration issues
- 2.0 Appraise the roles of stakeholders in transport policy process
- 3.0 Apply social, political, environment and technical issues in transport policy.
- 4.0 Explore transport policy formulation, implementation and evaluation strategies
- 5.0 Partake in transport policy administration for national planning

PROGI	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT							
CO	OURSE TITLE: TRANSPO I		COURSE COD	DE: TPM 328		CONTACT HOURS:	2-0-0	
	ADMINISTRAT							
Goal: T	The course is designed to prov	vide the students with kno	wledge and skill	s ın transport p	policy and	d administration		
	COURSE SPECIFICATION	S: THEORETICAL CON	ITENTS		PRAC	CTICAL CONTENTS		
1.0		jective 1.0: Comprehend			ation issu		_	
Week	Specific Learning Objective	Teachers Activities	Learning Resources	Specific L Objective	Learning	Teachers Activities	Evaluation	
1.	1.1 Define transport policy 1.2 Explain transport administration 1.3 Explain the Characteristics of a transport policy 1.4 Appraise the importance of Transport policy and administration.	policy Explain transport administration Explain the Characteristics of a transport policy Appraise the importance of	Books Journals Magazines CILT/CIoTA Bulletin				Discuss the importance of Transport policy and administratio n.	
1.0	General Objective 2.0: Appra	aise the roles of stakehold	lers in transport p	oolicy process				
2	2.1 Explain the stakeholders involve in making a transport policy 2.2 Describe the role of each stakeholder in making a transport	policy Describe the role of	Books Journals Magazines CILT/CIoTA Bulletin				Discuss the process of formulating a transport policy	
	policy 2.3 Explain the process of	each stakeholder in						

	C1-4:	noli ov				
	formulating a	policy				
	transport policy	Explain the precess of				
		Explain the process of				
		formulating a transport				
		policy			4.	
1.0	General Objective 3.0: Apply	y social, political, environ	ment and technic	cal issues in transport p	olicy.	
3	3.1 Explain the Social		Books			Discuss the
	issues contain in a	issues contain in a	Journals			Environment
	transport policy	transport policy				al and
	3.2 Explain the Political					Technical
	aspect of a transport	aspect of a transport				issues of a
	policy,	policy,				transport
	3.3 Explain the	Explain the				policy
	Environmental issues	Environmental issues				1 3
	of a transport policy	of a transport policy				
	3.4 Explain the Technical	1 1				
	aspects of a transport	aspects of a transport				
	policy	policy				
1.0	General Objective 4.0: Explo	ore transport policy formu	lation, implemen	ntation and evaluation s	trategies	
4	4.1 Explain the steps in					Discuss the
4	Transport Policy	Transport Policy	Journals			techniques
	Formulation	Formulation				used in the
			Magazines			
	4.2 Explain the stages of					evaluation of
	Transport Policy and	Transport Policy and				a transport
	implementation	implementation	Bulletin			policy
	4.3 Explain the	Explain the techniques				
	techniques used in the	used in the evaluation				
	evaluation of a	of a transport policy				
	transport policy					
1.0	General Objective 5.0: Partal	ke in transport policy adm	inistration for na	ational planning		

5	5.1 Explain transport	Explain transport	Books		Discuss	the
	administration	administration	Journals		Role	of
	5.2 Explain the	Explain the	CILT/CIoTA		Transport	:
	relationship between	relationship between	Magazines		policy	in
	transport policy and	transport policy and			National	
	national planning	national planning			Planning.	
	5.3 Appreciate the Role	Appreciate the Role of				
	of Transport policy in	Transport policy in				
	National Planning.	National Planning.				

Programme: Higher National Diploma (HND) in Transport Planning and Management					
Course Title: AVIATION OPERATIONS AND MANAGEMENT	Code: TPM 329	Contact Hour: 2-0			
MANAGEMENT		Credit Unit:2.0			
	Pre-requisite:	Theoretical: 2 hours/week			
Year:1 Semester: 1		Practical: 0 hours/week			

Goal: The course is designed to equip students with the required knowledge and skills in air transport operations and management

General Objectives:

- 1.0 Comprehend the nature, classifications and importance of aviation operations, management and performance.
- 2.0 Explore the airline organization and airport operations in relation with the aviation law and procedures
- 3.0 Analyse the statutory roles of civil aviation industry and its impact on national growth
- 4.0 Explore the structure of International Civil Aviation Organization (ICAO) and its objectives

- 5.0 Appraise the communication instructions in the aviation industry and the role of Fixed-Based Operation (FBO)
- 6.0 Apply the importance and procedure of safety measures in aviation operation and management

PROGR	RAMME: HIGHER NATIO	NAL DIPLOMA IN TR	ANSPORT PL	ANNING A	ND MAN	AGEMENT	
COURS	SE TITLE: AVIATION OPI	COURSE COD	COURSE CODE: TPM 329 CONTACT HOURS:		2-0-0		
	MANAGEMEN						
Goal: T	he course is designed to equi	p students with the requir	ed knowledge ar	nd skills in a	air transport	operations and manag	ement
	COURSE SPECIFICATION					CTICAL CONTENTS	
General	Objective 1.0: Comprehend	the nature, classifications	and importance		operations		
Week	Specific Learning	Teachers Activities	Learning	Specific	Learning	Teachers Activities	Evaluation
	Objective		Resources	Objective			
1.	1.1 Explain the nature of	Explain the nature of	Books,				Discuss the
	air transport services	air transport services	Journals,				importance
	1.2 Explain the	Explain the	Magazines,				of aviation
	classification of air	classification of air	CILT/CIoTA				services in
	transport services	transport services	Bulletin,				national
			Websites,				development
		Explain the importance	Research				
	importance air	air transport services	reports,				
	transport services		Newspapers.				
	Objective 2.0: Explore the a	<u>-</u>		in relation v	with the avia	ation law and procedure	
2	2.1 Describe airline	Describe airline	Books,				Describe
	organization and its	organization and its	Journals,				airline
	functions.	functions.	Magazines,				organization
			CILT/CIoTA				and its roles
	2.2 Appraise airport	Appraise airport	Bulletin,				in aviation
	operational laws and	operational laws and	Websites,				industry.
	policies	policies	Research				
	2.3 Analyse airline	Analyse airline	reports,				
	organisation performance.	organisation	Newspapers				
		performance					
General	Objective 3.0: Analyse the s	statutory roles of civil avia	ation industry an	d its impact	t on nationa	l l growth	

1				T
4	3.1 Explain the	Explain the	Books,	Discuss the
	establishment and	establishment and	Journals,	importance
	functions of agencies in	functions of agencies	Magazines,	of civil
	the aviation industry.	in the aviation	CILT/CIoTA	aviation
	3.2 Analyse the	industry.	Bulletin,	industry in
	importance of the aviation		Websites,	Nigeria
	agencies on nation's	importance of the	Research	Tugeria
	Č	1		
	economy	aviation agencies on	reports,	
	3.3 Appraise the	nation's economy	Newspapers	
	performance of civil	3.3 Appraise the		
	aviation industry in	performance of civil		
	Nigeria.	aviation industry in		
		Nigeria		
General	Objective 4.0: Explore the	structure of International	Civil Aviation Organization (ICAO) and its objective	es
5	4.1 Explain the	Explain the	Books,	Appraise the
	establishment and	establishment and	Journals,	roles of
	objectives of ICAO	objectives of ICAO	Magazines,	ICAO in
	4.2 Analyse the	Analyse the	CILT/CIoTA	aviation
	organizational	organizational	Bulletin,	industry
	structure of the ICAO	structure of the ICAO	Websites,	madstr y
	4.3 Appreciate the roles	Appreciate the roles of	Research	
	of ICAO in the	ICAO in the aviation	reports,	
	aviation industry	industry	Newspapers	

Gei	neral Objective 5.0: Appraise	the communication instru	actions in the avi	ation industry and the r	ole of Fixed-Based Ope	ration (FBO)
6	5.1 Define communication in the aviation industry 5.2 Explain the need and style of communication in the aviation industry 5.3 Appraise the effectiveness of communication style in aviation industry. 5.4 Explain the concept of FBO operations 5.5 Explain the roles of Fixed-Based Operation (FBO).	FBO operations	Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers			Discuss the style and the need of communicati on instructions in aviation industry.
Genera	l Objective 6.0: Apply the im	portance and procedure o	f safety measure	s in aviation operation	and management	
9	6.1 Explain the need for aviation safety measures. 6.2 Explain the procedures of safety measures in aviation industry. 6.3 Appraise the performance of safety measures in aviation	6.4 Explain the need for aviation safety measures. 6.5 Explain the procedures of safety measures in aviation industry. Appraise the performance of safety measures in aviation				Discuss the performance of safety measures in aviation industry in Nigeria.

industry.	industry.		

Programme: Higher National Diploma (HND) in Transport Planning and Management						
CourseTitle:TRANSPORTPLANNINGDESIGNVI(AIRPORTFACILITY	Code: TPM 330	Credit Hour: 5				
DESIGN)		Credit Unit: 3				
	Pre-requisite:	Theoretical: 1 hours/week				
Year:1 Semester: 1		Practical 4: hours/week				

Goal: The course is designed to equip students with knowledge and skills to plan, design and inspect airport facilities

General Objectives:

- 1.0 Comprehend airport facilities
- 2.0 Assess the factors in the planning and design of airport facility components
- 3.0 Apply safety regulation within the airport facility
- 4.0 Describe the inspection of facilities in a seaports
- 5.0 Prepare plan and technical report for airport facility

PROGI	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT						
COURSE TITLE: TRANSPORT PLANNING DESIGN VI (AIRPORT FACILITY DESIGN)						CONTACT HO	URS: 5
GOAL:	The course is designed to equi	students with knowledge and	skills to plar	n, de	sign and inspect airport fac	ilities	
COURS	SE SPECIFICATION:	THEORETICAL CONTE	NTS		PRACTIC	AL CONTENTS	
General	objective 1.0 Comprehend airp	ort facilities		ı			
WK	Specific Learning Objective	Teachers Activities	Learning		Specific Learning	Teachers	Evaluation
			Resources	S	Objective	Activities	
1-2	airport facility and its components. 1.3 Explain the features of airport facilities. 1.4 Explain the types and functions of airport facilities. 1.5 Apply spatial planning requirements for airport facility planning and design.	components. 1.8 Explain the features of airport facilities. 1.9 Explain the types and functions of airport facilities. 1.10 Apply spatial planning requirements for airport facility planning and design.	Relevant textbooks, Maps, Research report, and Computer Units.	1			Discuss the concept of airport facility.
General	Objective 2.0: Assess the facto 2.1 Explain the components	rs in the planning and design of Explain the components for	airport facil	lity c	Demonstrate the uses	Guide students	Discuss the
	for designing airport facilities. 2.2 Explain the scope, principles and techniques for	designing airport facilities. Explain the scope, principles and techniques	textbooks, Maps, Research report, and		of the components and techniques for designing airport facilities.	to: Use the components and techniques for	factors that influence airport facility design.

designing airport facilities. 2.3 Explain the factors that influence airport facility design. 2.4 Apply spatial planning requirements and standard for airport facility design.	Explain the factors that influence airport facility design	Computer Units.	Illustrate the components of a airport. Design and interpret the layout for a airport	designing airport facilities. Illustrate the components of a airport. Design and interpret the layout for a	
6.0 General Objective 3.0: Apply safet	regulation within the airport fa	eility		airport	
1.1 Define Personal Protective Equipment (PPEs). 1.2 Apply safety regulation of airport facilities 1.3 Explain types of disaster that affect airport facilities	Apply safety regulation on airport facilities Explain types of disaster that affect airport facilities	Books, Journals,	Demonstrate the usage of Personal Protective Equipment (PPEs) within the airport facility	to use the PPEs within airport	Discuss safety regulation and rules in airport facility
General Objective 4.0: Describe the in	1	1			
4.1Explain Inspection of a facility 4.2 Explain the methods of inspecting an airport facility 4.3 Explain the concept of inspecting an airport facility General Objective 5.0: Prepare plan an	Explain Inspection of a facility Explain the methods of inspecting a airport facility Explain the concept of inspecting an airport facility	Books Journals Manuals Base Maps Drawing Materials Cameras GPS etc.	Carry out the process of inspecting a airport facility	Guide students through the process of inspecting an airport facility	Discuss the methods and process of inspecting an airport facility.

5.1 Explain a plan and	Explain a plan and	Books	5.1 Prepare a plan and	Guide students	Discuss a
technical report of a	technical report of a airport	Journals	technical report of a	to Prepare a	technical
airport facility	facility	Magazines	airport facility	plan and	report of a
5.2 Explain how to write a	Explain how to write a plan	Manuals		technical report	airport facility
plan report	report	CILT/CIoTA		of a airport	
5.3 Explain how to write a	Explain how to write a	Bulletin		facility	
technical report on a	technical report on a	Drone,			
airport facility	airport facility	Base Maps,			
		GPS,			
		GIS,			
		TransCAD,			
		Cameras			
		Manuals			ļ

YEAR 2 SEMESTER 1

Course Title: PROJET PLANNING AND EVALUATION	Code: TPM 411	Contact Hour: 2
		Credit Unit:2
	Pre-requisite:	Theoretical: 2 hours/week
Year:1 Semester: 1		Practical: 0 hours/week
Goal: The course is designed to provide students	with the comprehensive knowledge	and skills to effectively plan and manage
transport project		
General Objectives:		

1.0	Appreciate the fundamentals of transport project planning and management
2.0	Comprehend the nature of transport project task in planning and management
3.0	Analyse the nature of transport project cost estimation
4.0	Comprehend the techniques for transport project planning and management
5.0	Appraise risk in transport project management

DDOC	RAMME: HIGHER NATION	AL DIDLOMA IN TRANSP	ODT DI ANNI	NC AND MANACEMEN	T	
	SE TITLE: PROJET PLANNI			URSE CODE: TPM 411	CONTACT HOURS	5: 2-0-0
GOAL	:: The course is designed to pro	vide students with the compre	hensive knowle	dge and skills to effectively	plan and manage	
	ort project	1		,		
_	SE SPECIFICATION:	THEORETICAL CONTR	ENTS	PRACTI	CAL CONTENTS	
Genera	l objective 1.0: Appreciate the fu	indamentals of transport project	et planning and	management		
WK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers Activities	Evaluation
			Resources	Objective		
1-4	 1.1 Explain different types of transport projects. 1.2 Appraise transport project life-cycle 1.3 Analyse factors affecting transport project success and failure in Nigeria. 1.4 Explain the objectives of transport project Management and its 	 i. Explain different types of transport projects. ii. Appraise transport project life-cycle iii. Analyse factors affecting transport project success and failure in Nigeria. iv. Explain the objectives of transport project 	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS,			Discuss the different types of transport projects.
	performance . Il Objective 2.0: Comprehend the	nd management				
5-6	2.1 Analyse the nature of transport projects.	1 Analyse the nature of transport projects.	Books, Journals, Magazines,			Discuss the nature and

2.2 Explain the characteristics of transport project organizations 2.3 Explain the management principles of a transport project General Objective 3.0: Analyse the nature	management principles of a transport project	CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera mation	characteristi cs of transport projects.
3.1 Explain cost elements in transport project and management. 3.2 Analyse the need for cost estimation in transport projects 3.3 Explain cost-estimation profile in transport project.	 i. Explain cost elements in transport project and management. ii. Analyse the need for cost estimation in transport projects iii. Explain cost estimation profile in transport project. 	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS,	Explain the need for cost-estimation in transport projects

			Camera	
General	Objective 4.0: Comprehend the	techniques for transport proje	ect planning and management	
10-12	4.1 Define transport project planning techniques 4.2 Explain the techniques for planning and managing transport projects 4.3 Appraise the techniques for evaluating transport projects.	Define transport project planning techniques 4.2 Explain the techniques for planning and managing transport projects 4.3 Appraise the techniques for evaluating transport projects.	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera	Discuss the techniques for project evaluation.
	Objective 5.0: Appraise risk in		Daylor	D:
13-14	5.1 Explain risk and techniques for risk identification in transport project 5.2 Analyse the nature and characteristics of risks in transport project. 5.3 Explain various types of risks in transport project.	i. Explain risk and techniques for risk identification in transport project ii. Analyse the nature and characteristics of risks in transport project. iii. Explain various types of risks in transport project.	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy	Discuss types of risks in transport project.

	documents, drones, GPS,		
	Manuals,		
	maps, GIS,		
	Camera		

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: TRANSPORT AND TOURISM	Code: TPM 412	Contact Hour: 2						
		Credit Unit:2						
	Pre-requisite:	Theoretical: 2 hours/week						
Year:1 Semester: 1		Practical: 0 hours/week						

Goal: The course is designed to equip students with the knowledge and skills in transport and tourism

General Objectives:

- 1.0: Comprehend the nature and characteristics of transport and tourism
- 2.0: Appreciate the organization and control of tourist transport
- 3.0: Analyse the characteristics and methods of tourist traffic projections
- 4.0: Appreciate the techniques of tourist traffic routing and scheduling
- 5.0 Comprehend the roles and responsibilities of the stakeholders in tourist transport management
- 6.0 Analyse the nature and importance of tourism documents in tourist transport planning and management

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT								
COURSE TITLE: TRANSPORT AND TOURISM				C	OURSE CODE: TP	M 412	CONTAC	CT HOURS: 2-0
GOAL	: The course is designed to e	equip students with the l	knowledge and skills in	n tr	ansport and tourism			
	SE SPECIFICATION:		AL CONTENTS			RACTIO	CAL CONT	TENTS
General	l objective 1.0: Comprehend	d the nature and charact	eristics of transport and	d to	urism			
WK	Specific Learning Objective	Teachers Activities	Learning Resources	_	ecific Learning		chers ivities	Evaluation
1	1.1 Define transport and tourism 1.2 Explain the nature and characteristics of transport in tourism 1.3 Explain factors influencing modal choice in tourism transport.	Explain transport and tourism Explain the nature and characteristics of transport in tourism ii. Explain factors influencing modal choice in tourism transport.	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera					Discuss the importance of transport in tourism.
	Objective 2.0: Appreciate t		-	rt				D: 41 1
2-3	2.1 Explain the nature and characteristics of tourism transport organizations. 2.2 Analyse the management structure	Explain the nature and characteristics of tourism transport organizations. 2.2 Analyse the management	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports,					Discuss the need for management control in tourism transport organization.

Committee	and techniques in tourism transport. 2.3 Appraise the need for management control in tourism transport organization.	structure and techniques in tourism transport. 2.3 Appraise the need for management control in tourism transport organization.	Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera		
6-7	3.1 Define tourist traffic projection 3.2 Explain traffic generation, distribution and projection in tourism industry 3.3 Analyse the techniques for tourism traffic estimates in transport management	.i. Explain traffic generation, distribution and projection in tourism industry ii. Analyse the techniques for tourism traffic estimates in transport management	hods of tourist traffic projection Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera	ns	Discuss the techniques for tourism traffic estimates in transport management
			traffic routing and scheduling		
8-9	4.1 Explain traffic routing and scheduling 4.2 Explain the method of traffic routing and scheduling.	Explain traffic routing and scheduling Explain the method of traffic routing and	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites,		Discuss the method of traffic routing and scheduling.

	4.3 List factors that influence tourist traffic routes and scheduling 4.4 Appraise the importance of traffic routing and scheduling in tourism industry. 4.5 Analyse the constraints and solutions to tourism traffic routing and scheduling	scheduling. List factors that influence tourist traffic routes and scheduling 4.4 Appraise the importance of traffic routing and scheduling in tourism industry. 4.5 Analyse the constraints and solutions to tourism traffic routing and scheduling	Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera			
General 10-11	Objective 5.0: Comprehence 5.1 Explain the nature and characteristics of stakeholders in tourism transport business 5.2 Analyse the relevance of stakeholders in tourism transport business. 5.3 Appraise the types and performance of stakeholders in tourism		Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera	lers in tourist transport man	agement	Discuss the types and performance of stakeholders in tourism transport business

	transport business	types and				
		performance of				
		stakeholders in				
		tourism transport				
		business				
General	l objective 6.0: Analyse the	nature and importance of	of tourism documents i	n tourist transport planning	and management	
12-14	6.1 Explain the nature	i. ExpLain the nature	Books,			Explain the
	and characteristics of	and characteristics	Journals,			relationship
	documents in tourism	of documents in	Magazines,			between tourism
	transport industry	tourism transport	CILT/CIoTA Bulletin,			documents and
	6.2 Explain the	industry	Websites,			transport
	relationship between	Explain the	Research reports,			documents
	tourism documents and	relationship between	Newspapers,			
	transport documents	tourism documents	Policy documents,			
	6.3Explain the concept	and transport	drones,			
	of tourism	documents	GPS, Manuals,			
	documentation and	Explain the concept	maps, GIS, Camera			
	validation in relation to	of tourism				
	tourism transport	documentation and				
	planning.	validation in relation				
		to tourism transport				
		planning.				

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: LAND USE PLANNING AND	Code: TPM 413	Credit Hour: 2						
ANALYSIS		Cuadit Huite?						
		Credit Unit:2						
	Pre-requisite:	Theoretical2 hours/week						
Vegut Comesteu 1		Drogstigal O. a. haven/reach						
Year:1 Semester: 1		Practical 0 : hours/week						

Goal: The course is designed to provide students with the knowledge and skills to participate in land use planning and spatial data analysis

General Objectives:

- 1.0 Apply land use on traffic and transport planning
- 2.0 Appreciate the types and classification of Land Uses in rural and urban settlements
- 3.0 Apply land use on trip generation, and distribution
- 4.0 Discuss land use Design Standards
- 5.0 Comprehend the procedure for preparing land use plan
- 6.0 Conduct Trip generation analysis by different land use

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT									
	COURSE TITLE: LAND USE PLANNING AND SPATIAL ANALYSIS COURSE CODE: TPM 413 CO						CONTA	CONTACT HOURS: 2-	
COAL	mi · 1 · 1.	• 1 . 1 . • • • • • • • • • • • • • • •	.1 1 1 1	1 '11 .		1	2-0		
	: The course is designed to pr			skills to					
	SE SPECIFICATION:		CAL CONTENTS		PRA	CTICAL	CONTE	ENTS	
1.0	General objective 1.0: Appl	ly land use on traffic	and transport plann	ıng					
WK	Specific Learning	Teacher's	Learning	Speci	fic Learning	Teac	hers	Evaluation	
	Objective	Activities	Resources	Obje	ctive	Activ	ities		
1-2	1.1Define land use	Explain land use	Textbooks and					Discuss the	
	1.2 Explain land use	Explain land use	journals on Land					rationale	
	planning	planning	uses					behind land	
	1.3 Explain the rationale	Explain the						uses and land	
	behind land uses and land	rationale behind						use planning	
	use planning	land uses and							
	1.4Appraise the scope of	land use planning							
	land use planning	Appraise the							
		scope of land use							
		planning							
1.0	General Objective 2.0: Appro	eciate the types and c	classification of Lan	d Uses	in rural and urban s	settlements	S	,	
3-4	2.1Explain the types of	Explain the types	Textbooks,					Explain the	
	land uses	of land uses	charts, journals					methods and	
	2.2 Appreciate the	Appreciate the	etc.					importance of	
	classification of land uses	classification of						land use	
	2.3 Explain the methods	land uses						classification	
	of land use classification	Explain the							

	2.4Explain the importance of land use classification	methods of land use classification Explain the importance of land use classification			
5-6	General Objective 3.0: App 3.1 Define trip generation, attraction and distribution. 3.2Explain the effects of land uses on trips generation, attraction and distribution 3.3 Explain how trips concept canbe used to shape land use	Explain trip generation, attraction and distribution. Explain the effects of land uses on trips generation, attraction and distribution Explain how trips concept canbe used to shape land use	Textbooks, charts, journals	oution	Discuss the effects of land uses on trips generation, attraction and distribution
	General Objective 4.0: Disc				
7-8	4.1 Define design standard 4.2Explain the relevance	Explain design standard	Textbooks, charts, pictures,		Discuss the application of

	of design standards in land	Explain the	videos, journals		design			
	use planning	relevance of	etc.		standards in			
	4.3 Appreciate the	design standards			land use			
	application of design	in land use			planning			
	standards in land use	planning						
	planning	Appreciate the						
	4.4 Explain design	application of						
	standards of community	design standards						
	facilities urban circulation	in land use						
	systems and industrial/	planning						
	commercial development	Explain design						
	areas.	standards of						
		community						
		facilities urban						
		circulation						
		systems and						
		industrial/						
		commercial						
		development						
		areas.						
1.0 General Objective 5.0: comprehend the procedure for preparing land use plan								
9-10	5.1 Define planning	Define planning	Textbooks,		Discuss the			
	procedure	procedure	charts, pictures,		procedures of			
	5.2Explain the different	Explain the						

	types of plans 5.3 Outline the procedures of preparing land use plan.	different types of plans Outline the procedures of preparing land use plan	videos, journals, Urban Design standard with colour codes etc.		preparing land use plan.			
General Objective 6.0: Conduct Trip generation for data analysis for different land use								
11-12	6.1 Define data, data	Explain data, data	Textbooks,		Discuss data,			
	gathering, data analysis	gathering, data	charts, pictures,		data gathering,			
	and data interpretation	analysis and data	videos, journals		data analysis			
	6.2 Explain the sources of	interpretation	etc.		and data			
	trip generation data	Explain the			interpretation			
	6.3Explain the methods of	sources of trip						
	analyzing trip data	generation data						
	6.4Appreciate the uses of	Explain the						
	trip data and information	methods of						
		analyzing trip						
		data						
		Appreciate the						
		uses of trip data						
		and information						

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: TRANSPORT SEMINAR	Code: TPM 414	Credit Hour: 2						
		Credit Unit:2						
	Pre-requisite:	Theoretical: 2 hours/week						
Year:1 Semester: 1		Practical 0 : hours/week						

Goal: The course is intended to enable students prepare and deliver seminar on planning issues, problems and solutions

General Objectives:

On completion of this course, students should be able to;

- 1.0 Understand the purpose of transport seminar
- 2.0 Frame suitable and researchable seminar topic
- 3.0 Prepare and present seminar on solving transport problems.

PROGI	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT								
COURS	COURSE TITLE: TRANSPORT SEMINAR COURSE CODE: TPM 414 CONTACT HOURS: 2-2-0								
GOAL:	GOAL: The course is intended to Enable students to prepare and deliver seminar on planning issues, problems and solutions								
COURS	SE SPECIFICATION:	THEORETIC	CAL CONTENTS			PRACTICA	AL CONTE	NTS	
	objective 1.0: Understand			1					
WK	Specific Learning	Teachers	Learning	-	ic Learning	Teac		Evaluation	
	Objective	Activities	Resources	Objec	tive	Activ	vities		
1-2	1.0 Purpose of	(i). Explain what a	Past seminar						
	Seminar	seminar is and its	papers, relevant						
	1.1 Explain what is	purpose in planning	textbooks on						
	meant by seminar.		various seminar						
	1.2 Discuss the need for		topics.						
	seminar in urban								
	planning programme								
General	Objective 2.0: Frame suital	ble and present semina	r topic			· · · · · · · · · · · · · · · · · · ·			
3-4	2.1 Identify	(i) Identify and	Books on						
	contemporary planning	frame seminar	Seminar						
	issues.	topics to reflect	Writing.						
	2.2 Choose topics that	current planning							
	will address a particular	issues and							
	planning issue.	problems.							
Genera	Objective 3.0 Prepare and	present seminar on sol	ving transport prol	olems.		1			
5-6	3.1 State how to collect	(i) Collection and	Books on						
	and use data.	use of data for	Seminar						
	3.2 Arrange the ideas in	seminar papers.	Writing						

	a table of contents.		Bus, camera,		
	3.3 Write out the paper	(ii) Approval of	writing		
	in a logical sequence	planning seminar	materials,		
	with simple expressions.	topics for students.	computer, maps		
7-12	3.4 Present the seminar		etc.		
	paper to an audience.	(iii) Presentation of			
	3.5 Incorporate	seminar papers by			
	comments from the	students to			
	audience.	audience.			
		(iv) Review and			
		incorporation of			
		comments into the			
		seminar topics.			

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: TRANSPORT MANAGEMENT INFORMATION SYSTEM	Code: TPM 415	Credit Hour: 2						
		Credit Unit: 2						
	Pre-requisite:	Theoretical: 2 hours/week						
Year:1 Semester: 1		Practical 0: hours/week						

Goal: The course is designed to provide students with the knowledge and skills of software applications in transport planning and management

General Objectives:

On completion of this course, students should be able to:

- 1.0 Appreciate the importance of Transport Management Information System (TMIS) in transport operations
- 2.0 Comprehend the nature of spatial object and data management in transport operations
- 3.0 Comprehend the components of transport database
- 4.0 Apply the automated information systems in managing transport operations
- 5.0 Apply Transport Management System (TMS) in transport operations
- 6.0 Apply the principles of Geographic Information System (GIS) in transport planning and management

PROGI	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT										
COURS SYSTE	SE TITLE: TRANSPORT M M	ANAGEMENT INFOR	MATION	COURSE CODE: TP	M 415	CONTAC	CT HOURS: 2				
GOAL:	GOAL: The course is designed to provide students with the knowledge and skills of software applications in transport planning and management										
COURS	SE SPECIFICATION:	THEORETICAL C	CONTENTS	PR	ACTICAL CO	NTENT	S				
	objective 1.0: Appreciate the										
WK	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers Acti	ivities	Evaluation				
	Objective		Resources	Objective							
1-2	1.4 Define Information System 1.5 Trace historical development of Transport Management System (TMS) 1.6 Relate Information System to transport planning and management 1.7 Describe types and features of TMIS in transport operations	Explain Information Management System Relate Information System to transport planning and management Describe types and features of TMIS in transport operations Explain the roles of TMIS in transport operation	Books, Journals, Magazines, Bulletins, and Research Reports				Discuss Management Information System TMIS in transport operations				
	2.0 Explain the roles of TMIS in transport										

	operation				
General	Objective 2.0: Comprehend th	ne nature of spatial object a	and data management in t	transport operations	·
3-4	 2.1 Define spatial objects and data management 2.2 Explain types of spatial objects and data in transport operations. 2.3 Describe the acquisition of spatial objects and data in transport operations. 2.4 Explain data management and its characteristics in transport operations. 2.5 Explain the significance and constraints of data management in transport operations. 	Explain spatial objects and data management Explain types of spatial objects and data in transport operations. Describe the acquisition of spatial objects and data in transport operations. Explain data management and its characteristics in transport operations. Explain the significance and constraints of data management in transport operations.	Textbooks, Database, computer unit, relevant software packages.		Appraise the relevance of data management in transport operations.
General 5-6	Objective 3.0: Comprehend th	Discuss the			Discuss the
3-0	3.1 Explain the components of a database.	components of a	Textbooks,		
	3.2 Describe the functions	database.	Database,		relationship among
	of transport database	uaiavast.	computer unit,		the components of a

	components. 3.3 Explain the relationship among the components of a transport database.	Describe the function of transport database components. Discuss the relationsh among the componen of a transport databas	packages.		transport database.
7-8	Objective 4.0: Apply the auto 4.1 Explain the automated information systems in transport operations. 4.2 Explain the features of the automated information systems in transport operations. 4.3 Describe the benefits of the automated information systems in transport operations.	Explain the automated information systems is transport operations. Explain the features of the automated information systems is transport operations. Describe the benefits the automated information systems is transport operations.	Textbooks, Database, computer unit, relevant software packages.	operations	Discuss the features of any three automated information systems in managing transport operations.
General 10-11	Objectives 5.0: Apply Transpose 5.1 Explain the concepts, features and principles of TMS. 5.2 Describe the relationship among the	Discuss historical development of Transport Management System (TMS) Discuss the	m (TMS) in transport operate Computer hardware and software packages, GPS, ordinance maps, database, textbooks, journals and research	itions	Explain the features and principles of TMS in transport operations.

	concepts of TMS.	concepts, features	reports.			
	•	and principles of				
	5.3 Explain the application	TMS.				
	of TMS in transport					
	operations.	Explain the				
		relationship among				
		the concepts of				
		TMS.				
		Discuss the				
		application of TMS				
		in transport				
		operations.				
	General Objective 6.0: Apply t			n (GIS) in transport plan	nning and management	
12-14	6.1 Trace the historical	Discuss the	Computer hardware			With a relevant
	development of Geographic Information	historical development of	and software			example, discuss
	System (GIS)	Geographic	packages, GPS,			the application of
	2520000 (202)	Information	ordinance maps,			GIS in transport
	6.2 Explain the concepts,	System (GIS)	database, textbooks,			management.
	features, principles and		journals and research			
	data models of GIS.	Discuss the	reports.			
		concepts, features,				
	6.3 Describe types of data,	principles and data				
	data layer and data	models of GIS.				
	integration in GIS.					
	_	Describe types of				

6.4 Describe the	data, data layer and		
relationship among the	data integration in		
concepts and data types in	GIS.		
GIS.			
	Discuss the		
6.5 Explain the application	relationship among		
of GIS in transport	the concepts and		
planning and management.	data types in GIS.		
	Discuss the		
	application of GIS		
	in transport		
	planning and		
	management		

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: TRAFFIC MANAGEMENT AND	Code: TPM 416	Credit Hour: 2						
SAFETY		Credit Unit: 2						
	Pre-requisite:	Theoretical: 2 hours/week						
Year:2 Semester: 1		Practical: 0 hours/week						

Goal: The course is designed to provide the students with the knowledge and skills to manage traffic and safety issues in transport

General Objectives:

On completion of this course, the student should be able to

- 1.0 Comprehend traffic management strategies and techniques
- 2.0 Appreciate the responsibilities of Parent, Teachers and Passengers in road safety
- 3.0 Appreciate traffic offence, penalties and accident statistics
- 4.0 Appraise the causes, effects and countermeasures of road crashes
- 5.0 Comprehend legislation, Enforcement and enforcement agencies
- 6.0 Apply Defensive Driving principles and practices
- 7.0 Explore accidents investigation and reporting procedure

	SE TITLE:-TRAFFIC MAN				OURSE COD		CONTACT HOURS: 2-0-0
COUR	ETHE course is designed to prose SE SPECIFICATION: Heral objective 1.0: Comprehen	THEORETICA	L CONTENTS		P	ffic and safety RACTICAL	•
WK	Specific Learning Objective	Teachers Activities	Learning Resources	Specif Objec	ic Learning tive	Teachers Activities	Evaluation
1-2	1,1 Explain Traffic management 1.2 Comprehend road traffic management principles 1.3 Explain the technique of traffic management	Explain Traffic management Comprehend road traffic management	Computer hardware and software packages, GPS, ordinance maps, textbooks, journals.	3			Discuss road traffic management principles
9.0 Gen	neral Objective 2.0: Appreciate	the responsibilities of	Parent, Teacher	s and Pa	assengers in roa	d safety	
3-4	2.1 Explain road safety 2.1 Describe the roles and responsibilities of parents in road safety,		Journals, handbook/flie rs by traffic management				Discuss the roles and responsibiliti es of

2.3 Explain the roles and responsibilities of teachers in road safety 2.4 Explain the roles and responsibilities of passengers in ensuring road safety.	parents in road safety,	agencies, traffic laws and regulations etc.		passengers in ensuring road safety.
	safety.	10: 1 ·	1 4 4 7 7	
10.0 General Objective 3.0: Apprecia			ient statistics	
5-6 3.1 Explain traffic offences	Explain traffic	1		Discuss the
3.2 Describe offenses	offences	traffic		methods of
committed by road users	Describe offenses	management		gathering and
3.3 Explain the penalties of	committed by	agencies,		analyzing
traffic offences in traffic	road users	report from		data relating
laws.	Explain the	road safety		to traffic
3.4 Explain accident and the	penalties of	agencies,		offences and
causes of accident	traffic offences in	Journals/Text		accident data
3.6 Explain the methods of	traffic laws.	books/handb		

				_		
	gathering and analyzing	Explain accident				
	data relating to traffic	and the causes of	management,			
	offences and accident data	accident	computer,			
		Explain the	calculator,			
		methods of	etc.			
		gathering and				
		analyzing data				
		relating to traffic				
		offences and				
		accident data				
11.0	General Objective 4.0: Appraise	the causes, effects a	and countermeas	sures of road crashes		
7-8	4.1 Define road crashes	Define road	Textbooks,			Discuss the
	4.2 Explain the cause of	crashes	Journals,			effect of road
	road crashes	Explain the cause	charts,			crashes and
	4.3 Explain the effect of	of road crashes	pictures,			measures to
	road crashes	Explain the effect	computer/inte			counter
	4.4 Apply measures to	of road crashes	rnet, etc.			accident
	counter accident	Apply measures				
		to counter				
		accident				
12.0	General Objective 5.0: Compreh	end legislation, Enfo	preement and ent	forcement agencies	-	
9-10	5.1 Define Legislation in	Explain	Textbooks,			Discuss the
	traffic management	Legislation in	Journals,			responsibiliti
	5.2 Explain the importance	traffic	computer/inte			es of
L	1	I	l	1		

	of legislation in traffic	management	rnet, chart		trafficenforce
	management	Explain the	etc.		ment
	5.3 Explain the reasons and	importance of			agencies in
	processes of legislation for	legislation in			Nigeria
	traffic regulations	traffic			
	5.4 Appreciate the	management			
	responsibilities of traffic	Explain the			
	enforcement agencies in	reasons and			
	Nigeria	processes of			
		legislation for			
		traffic regulations			
		Appreciate the			
		responsibilities of			
		traffic			
		enforcement			
		agencies in			
		Nigeria			
13.0 G	General Objective 6.0: Apply De	efensive Driving prin	nciples and pract	ices	
11-12	6.1 Explain Defensive	Explain	Textbooks,		Discuss the
	driving	Defensive	Journals,		Principles
	6.2 Explain the Principles	driving	computer/inte		and practices
	and practices of defensive	Explain the	rnet, chart		of defensive
	driving	Principles and	etc.		driving
	6.3 Appreciate defensive	practices of			

	driving and accident prevention 6.4 Explain the importance defensive driving	defensive driving Appreciate defensive driving and accident prevention Explain the importance defensive driving			
14.0	General Objective 7.0 Explore a	ccidents investigatio	n and reporting p	procedure	
13	7.1 Explain accident investigation 7.2 Explain the procedure for investigating and analyzing accident 7.3 Appraise the procedures for reporting accident	Explain accident investigation Explain the procedure for investigating and analyzing accident Appraise the procedures for reporting accident	Textbooks, Journals, computer/inte rnet, chart etc.		Discuss accident investigation and procedures for reporting accident

Programme: Higher National Diploma (HND) in T	ransport Planning and Management	
Course Title: FUNDAMENTALS OF OPERATIONS RESEARCH	Code: TPM 417	Credit Hour: 2
OI ERATIONS RESEARCH		Credit Unit:2
	Pre-requisite:	Theoretical: 2 hours/week
Year:2 Semester: 1		Practical 0 : hours/week
Goal: This course is designed to provide students with	th knowledge and skills required to solve com	plex analytical situation
General Objectives:		

On completion of this course, the student should be able to;

- 1.0 Appreciate the basic concept of Operations Research
- 2.0 Comprehend Network Problems and Applications
- 3.0 Apply index numbers
- 4.0 Appreciate the operating characteristics of a Queuing System
- 5.0 Comprehend the project scheduling and PERT-CPM
- 6.0 Apply mathematical formulations in Operations Research
- 7.0 Appreciate Linear Programming

PROGI	RAMME:	HIG	HER N	ATIONAL DIPLOMA	A IN TRANS	PO	ORT PLANNING AND M	IANAGEMENT	
COURS	SE TITLE: FUNDAME	NTAL	S OF C	PERATIONS RESEA	RCH C	ΟU	IRSE CODE: TPM 417	CONTACT HOURS: 2	2-0-0
GOAL	This co	ırse is d	lesigne	d to provide students wi	ith knowledge	an	d skills required to solve	complex analytical situati	on
COURS	SE SPECIFICATION:		THI	EORETICAL CONTE	ENTS		PRAC'	TICAL CONTENTS	
	1.0	Ge	neral o	bjective 1.0 Appreciate	the basic cond	cep	t of Operations Research		
WEE	Specific Learning Obj	ective	Teacl	hers Activities	Learning		Specific Learning	Teachers Activities	Learning
K					Resources		Objective		Resources
1	1.5 Define operation re	search	i.	Explain operation	Books				Discuss the
	1.6 Trace the origins ar	ıd		research	Journals				scope,
	impacts of operation	ns	ii.	Discuss the origins	Magazines				features,
	research			and impacts of	CILT				phases and
	1.7 Explain the scope,			operations research	Transport				types of
	features, phases and	l types	iii.	Explain the scope,	Focus				operations
	of operations resear	ch		features, phases and	Bulletin				research
	Models.			types of operations					Models.
	1.8 Explain operations			research Models.					
	research Methods a	nd	iv.	Explain operations					
	tools			research Methods					
	1.9 Explain the limitation	ons of		and tools					
	operations research		v.	Explain the					
	1.10 Calculate			limitations of					
	mathematical mode	ling of		operations research					
	real life problems.		vi.	Show the					
				mathematical					
				modeling of real life					
				problems					

	General Objective 2.0: Compre	hend Network Problems and	Applications		
2.3	2.8 Explain initial basic feasible solutions 2.9 Explain optimum solution for non- degeneracy and degeneracy model; 2.10 xplain travelling salesmen problem. 2.11 ransportation and Assignment Problem Formulation	Feasible solutions ii. Explain optimum solution for non- degeneracy and degeneracy model;	Books Journals Magazines CILT Transport Focus Bulletin		Discuss the initial basic feasible solutions
	General Objective 3.0: Apply i	1		1	
5-6	 3.7 Define index number 3.8 Explain the concept of index numbers 3.9 Explain Simple and Weighted Index numbers 3.10 ighlight published Economic and business 	 i. Explain the concept of index numbers ii. Explain Simple and Weighted Index numbers iii. Apply published Economic and business index numbers to real 	Books Journals Magazines CILT Transport Focus Bulletin		Discuss the concept of index numbers

	index numbers.	lif	e situation					
	General Objective 4.0: Appreciate the Operating Characteristics of a Queuing System							
7-8	4.7 Define Queuing theory	i.	Explain Queuing	Books			Explain	
	4.8 Explain the constituents		theory	Journals			Queuing	
	of a Queuing System,	ii.	Explain the	Magazines			theory	
	Service facility and		constituents of a	CILT				
	Queue discipline		Queuing System,	Transport				
	4.9 Show Practical problems		Service facility and	Focus				
	in Queuing system		Queue discipline	Bulletin				
		iii.	Discuss Practical					
			problems in					
			Queuing system					

	General Objective 5.0: Compre	ehend F	Project Scheduling and	PERT-CPM			
9-10	5.5 Define project scheduling	i.	Explain project				Discuss
	5.6 Differentiate between		scheduling				Programme
	Programme Evaluation	ii.	Explain the	Books			Evaluation
	and Review Technique		Difference	Journals			and Review
	(PERT) and Critical Path		between	Magazines			Technique
	Method (CPM)		Programme	CILT			(PERT) and
	5.7 Explain PERT/CPM		Evaluation and	Transport			Critical
	Network Components and		Review Technique	Focus			Path
	Precedence Relationship,		(PERT) and Critical	Bulletin			Method
	5.8 Explain Project		Path Method				(CPM)
	Management with respect		(CPM)				
	to Practical problems in	iii.	Explain				
	Networking Methods.		PERT/CPM				
			Network				
			Components and				
			Precedence				
			Relationship,				
		iv. I	Explain Project				
			Management with				
			respect to Practical				
			problems in				
			Networking				
			Methods				
	General Objective 6.0: Apply	mather	natical formulations in	Operations Research	arch	•	

11-12	6.5 Define operation research	i. Explain operation		Guide students to	Demonstration	Discuss
	6.6 Explain Mathematical	research	Books	formulate mathematical	mathematical	Mathematic
	models and models	ii. Explain	Journals	formulations	formulations	al models
	components	Mathematical	Magazines			and models
	6.7 Explain simplex solution	models and models	CILT			components
	Technique using	components	Transport			1
	Graphical Method,	iii. Explain simplex	Focus			
	Algebraic Approach	solution Technique	Bulletin			
		using Graphical				
		Method, Algebraic				
	Objective 7.0 : Appreciate Line	Approach				
	J 11	, , , , , , , , , , , , , , , , , , , 		C-: 1t- 1t- t1	C-1 1:	Discuss 41. s
	7.1 Define linear	i. Explain linear		Guide students to solve	Solve linear	Discuss the
	programming	programming		linear programming	programming problems	Concept of
	7.2 Explain Linear algebra	ii. Explain Linear algebra		problems		Basis,
	7.3 Explain the Linear	iii.Explain the Linear				Basic
	independence and dependence	independence and				Feasible
	of vectors.	dependence of vectors.				solution,
	7.4 Explain the Concept of	iv. Explain the Concept of				Convex
	Basis, Basic Feasible solution,	Basis, Basic Feasible				sets.
	Convex sets.	solution, Convex sets.				
	7.5 Explain the Formulation	v. Explain the Formulation				
	of Linear Programming	of Linear Programming				
	Problem					

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: PIPELINE TRANSPORT	Code: TPM 418	Credit Hour: 2					
OPERATIONS AND MANAGEMENT		Credit Unit: 2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 1		Practical 0 : hours/week					

Goal: The course is designed to equip students with the knowledge and skills of pipeline operations and management

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Appreciate the importance of pipeline operations to national economic development
- 2.0 Comprehend the nature of pipeline operations in Nigeria
- 3.0 Recognize the functions of the organizations responsible for pipeline management in Nigeria
- 4.0 Apply the policy and regulations guiding tank farm and depot development
- 5.0 Describe pipeline vandalism and its implications for the national economy

PROGI	RAMME: HIGHER NATIONA	AL DIPLOMA IN TRANSPO	ORT PLANNIN	NG AND MANAGEMEN	NT		
	SE TITLE: PIPELINE TRANS			COURSE CODE: TPM		CONTACT	HOURS: 2-0-2
MANA	GEMENT						
GOAL	The course is designed to equip	students with the knowledge a	and skills of pipe	eline operations and mana	gement	t	
COUR	SE SPECIFICATION:	THEORETICAL CONTE	ENTS	PRACT	ICAL (CONTENTS	
General	objective 1.0: Appreciate the in	portance of pipeline operation	s to national ec	onomic development			
WK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Tea	chers	Evaluation
			Resources	Objective	Acti	ivities	
1-3	1.1 Explain pipeline transport	Discuss the pipeline	Textbooks,				Explain the
	system.	transport system.	Journals,				significance
	1.2 Explain the components		Research				of pipeline
	and purpose of pipeline	Explain the components	reports,				transport
	transport system.	and purpose of pipeline	Monograph,				operations to
	1.3 Appraise the nature and	transport system	and Gazette.				national
	context of pipeline transport						economic
	operations.	Discuss the nature and					development.
	1.4 Explain the concept of	context of pipeline transport					
	safe operation and its	operations.					
	application in pipeline						
	transport operations.	Discuss the concept of safe					
	1.5 Explain the codes and	operation and its					
	standards in planning pipeline	application in pipeline					
	transport.	transport operations.					
	1.6 Explain the economic						
	importance of pipeline	Discuss the codes and					

	transport operations to national development.	standards in planning pipeline transport. Discuss the economic importance of pipeline transport operations to national development.				
Genera	al Objective 2.0: Comprehend the	nature of pipeline operations i	n Nıgeria			
4-5	2.1 Explain the nature and context of pipeline transport operations in Nigeria 2.2 Trace the evolution of pipeline transport operations in Nigeria 2.3 Explain the constraints of pipeline transport operations in Nigeria	Discuss the nature and context of pipeline transport operations in Nigeria. Discuss the evolution of pipeline transport operations in Nigeria. Discuss the constraints of pipeline transport operations in Nigeria.	Textbooks, Journals, Research reports, Monograph, and Gazette.			Discuss the constraints of pipeline transport operations in Nigeria.
Genera	al Objective 3.0: Recognize the fur	nctions of the organizations re	sponsible for pipe	eline management in Nig	geria	
6-7	3.1 Explain pipeline management3.2 Explain the features and	Discuss pipeline management Explain the features and	Textbooks, Journals, Research			Explain the roles of the organizations

	purpose of pipeline management 3.3 Explain the strategies for managing pipeline transport operations. 3.4 Assess the roles of organizations responsible for pipeline management in	purpose of pipeline management Discuss the strategies for managing pipeline transport operations. Discuss the roles of organizations responsible for pipeline management in	reports, Monograph, Website and Gazette.		responsible for pipeline management in Nigeria.
	Nigeria.	Nigeria.			
General C	Objective 4.0: Apply the policy	and regulations guiding tank	farm and depot de	evelopment	
	4.1 Explain policy and regulation. 4.2 Explain different pipeline policy and regulations guiding depot development and tank farm. 4.3 Explain the importance of pipeline policy and regulations in depot development. 4.4 Explain the implications of transport policy on the pipeline transport development and its operations.	Explain policy and regulation, different pipeline policy and regulations guiding depot development and tank farm.	Textbooks, Journals, computer/inte rnet, chart, maps, pictures etc.		Explain the implications of transport policy on the development of pipeline transport development and its operations.

11-12	5.1 Explain pipeline	Discuss pipeline	Relevant	Assess the
	vandalism.	vandalism.	reports,	effects of
	5.2 Explain the forms of		journals,	pipeline
	vandalism in the pipeline	Discuss the forms of	textbooks,	vandalism on
	transport system.	vandalism in the pipeline	newspaper/ma	national
	5.3 Appraise the causes and	transport system.	gazines,	economic
	consequences of pipeline		pictures,	development.
	vandalism.	Discuss the causes and	statistical data	
	5.4 Describe the mitigation	consequences of pipeline	and	
	measures for pipeline	vandalism.	monograph.	
	vandalism in Nigeria.			
		Describe the mitigation		
		measures for pipeline		
		vandalism in Nigeria.		

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: TRANSPORT PLANNING Code: TPM 419 Credit Hour: 5							
DESIGN VII (PIPELINE TERMINAL FACILITY DESIGN)		Credit Unit:3					
	Pre-requisite:	Theoretical:1 hours/week					
Year:1 Semester: 1		Practical 4: hours/week					

Goal: The course is designed to equip students with the knowledge and skills to plan, design and inspect pipeline terminal facility

General Objectives:

On completion of this course, the student should be able to:

- 7.0 Comprehend pipeline transport terminal facilities
- 8.0 Appraise planning and design factors for components of pipeline terminal facilities
- 9.0 Apply safety regulation and rules on facilities within the pipeline terminal
- 10.0 Describe the inspection of pipeline depot, tank farm, booster stations, refineries and other ancillary facilities
- 11.0 Prepare plan and technical report for pipeline transport terminal facility

ERM	SE TITLE: TRANSPORT PLA INAL FACILITY DESIGN) The course is designed to equip			OURSE CODE: TPM 419 erminal facility design	CONTACT HO	OURS: 5
COUR	SE SPECIFICATION:	THEORETICAL CONTE	NTS	PRACTIC	CAL CONTENT	S
enera	l objective 1.0: Comprehend pipe	eline transport terminal facilitie	es			
VK	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Evaluation
2	 1.1 Explain the characteristics of pipeline terminal facilities. 1.2 Explain the types and functions of pipeline terminal facilities. 1.3 Explain the concept of pipeline terminal facility and its components. 1.4 Apply spatial planning requirements for pipeline terminal facility planning and 	Explain the characteristics of pipeline terminal facilities. Explain the types and functions of pipeline terminal facilities. Explain the concept of pipeline terminal facility and its components. Apply spatial planning requirements for pipeline	Relevant textbooks, Maps, Research report, and Computer Units.			Discuss the concept of pipeline terminal facility.
	design.	terminal facility planning and design.				
enera	Objective 2.0: Appraise planning					
	2.1 Explain the components for designing pipeline terminal facilities.	Explain the components for designing pipeline terminal facilities.	Relevant textbooks, Maps,	Demonstrate the usage of the components and techniques for	Guide students to: use the	Discuss the factors that influence

 2.2 Explain the scope, principles and techniques for designing pipeline terminal facilities. 2.3 Explain the factors that influence pipeline terminal facility design. 2.4 Apply spatial planning requirements and standards for pipeline terminal facility design. 	for designing pipeline terminal facility. Explain the factors that influence pipeline terminal facility design Apply spatial planning requirements and standards	Research report, and Computer Units.	designing pipeline terminal facilities. Illustrate the components of a pipeline transport terminal Prepare plan design and interpret layout, master plan, and maps for a pipeline terminal.	components and techniques for designing pipeline terminal facilities. illustrate the components of a pipeline transport terminal prepare plan design and interpret layout, master plan, and maps for a pipeline terminal.	pipeline terminal facility design.
General Objective 3.0: Apply safety	regulation and rules on facilities v	ithin the pipeline	e terminal		
3.1 Define Personal Protect equipment (PPEs) 3.2 Describe the application of PPEs 3.3 Assess the use of safety regulation on pipeline	safety regulation on pipeline terminal facilities Discuss types of disaster	Books, Journals, Magazines, CILT/CIoTA Bulletin, and research	Demonstrate the use of Personal Protective Equipment (PPEs) within the pipeline transport terminal facility	Guide students to use the PPEs within the pipeline transport terminal facility	Discuss safety regulation and rules in pipeline terminal facility

terminal facilities 3.4 Explain types of of that affect pipeline terminal facilities General Objective 4.0 Describe		reports farm, booster sta	tions, refineries and other a	ncillary facilities	
4.1Explain the method process of inspecting: - pipeline depot, - tank farm, - booster station - refineries and e - ancillary terming facilities.	Explain the methods and process of inspecting pipeline depot, tank farm, booster stations, refineries and other ancillary terminal facilities.	Books Journals Manuals Base Maps	Carry out inspection of: -pipeline depot, -tank farm, -booster stations - ancillary facilities - refinery	Guide students through: the process of inspecting pipeline depot, tank farm, booster stations and ancillary facilities.	Explain the methods and process of inspecting a pipeline terminal facility.
General Objective 5.0: Prepare	plan and technical report for pipeline t	ransport terminal	facility	the process of inspecting a refinery.	
5.4 Explain the pipelir		Books	Prepare pipeline plan	Guide students	Explain
5.4 Explain the pipelii 5.5 Identify other basi		Journals	and other basic terminal	to:	pipeline plan
terminal componer		Magazines	components design.	prepare a	and other
the design of pipel	1	Manuals	Interpret layout, master	pipeline plan	basic terminal
plan.	Explain layout design,	CILT/CIoTA	plan, and maps for a rail	and interpret	components
Piun.	maps and master plan for	Bulletin	terminal.	layout, master	in the design
5.6 Explain layout des		Drone,	Prepare a technical	plan, and maps	of pipeline
maps and master p		Base Maps,	report	for a pipeline	or pipeline
pipeline terminal.	Write a technical report	GPS,	Port	terminal	
pipeline terminar.	Write a technical report	GIS,		write a technical	
5.7 Produce a technica	l report	TransCAD,		report on	
	•	Cameras		pipeline	

	Manuals		terminal facility	
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YEAR 2 SEMESTER 2

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course	Title: FREIGHT CLEARING AND	Code: TPM 421	Credit Hour	r: 2			
FORW.	ARDING		Credit Unit:	:2			
		Pre-requisite:	Theoretical:	2 1	hours/week		
Year:1	Semester: 1		Practical	0:	hours/week		
Goal:	The course is designed to enable students deve	elop competencies needed to become freight for	orwarding pro	fessi	onals		
Genera	l Objectives:						
On com	pletion of this course, students should be able	to:					
1.0	Comprehend the principles of freight clearing	g and forwarding					
2.0	Recognize the basics of export and import tra	ade and documentations					
3.0	Appreciate the importance of ocean shipping	and logistics management					
4.0	4.0 Comprehend basics of seaport management						
5.0	O Analyze the significance of multimodal transport in freight clearing and forwarding						
6.0	Familiarize with basic legal framework of Ni	gerian Customs Service					

PROGR	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT							
COURSE	COURSE TITLE FREIGHT CLEARING AND FORWARDING COURSE CODE: TPM 421 CONTACT HOURS: 2-1-0							
GOAL: 7	GOAL: The course is designed to enable students develop competencies needed to become freight forwarding professionals							
	E SPECIFICATION:	THEORETICAL CONTE		PRACT	ICAL CONTE	NTS		
General o	bjective 1.0: Comprehend the p	rinciples of freight clearing and	forwarding					
WEEK	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation		
	Objective		Resources	Objective	Activities			
1-2	1.1 Explain freight, freight	Discuss freight, freight	Books			Explain the		
	clearing and freight	clearing and freight	Journals			documentation		
	forwarding	forwarding.	Magazines			process in freight		
	1.2 Explain nature, types		CILT			clearing and		
	and characteristics of	Discuss the nature, types and	Transport			forwarding.		
	freight	characteristics of freight.	Focus					
	1.3 Explain the principles		Bulletin			Discuss the		
	and procedures for	Discuss the principles and				significance of		
	freight clearing and	procedures for freight				freight clearing and		
	forwarding.	clearing and forwarding.				forwarding in the		
	1.4 Explain the international	Discuss the international				development of the		
	rules and standards of	rules and standards on				Nigeria's maritime		
	freight clearing and	freight clearing and				transport.		
	forwarding.	forwarding.						
	1.5 Assess the institutional							
	frameworks for freight	Explain the institutional						
	clearing and forwarding	frameworks for freight						
	in Nigeria.	clearing and forwarding in						

	1.6 Explain the constraints of freight clearing and	Nigeria.		
	forwarding in Nigeria.	Discuss the constraints of freight clearing and		
		forwarding in Nigeria		
General	Objective 2.0: Recognize the bas	sics of export and import trade a	nd documentations	
3-4	2.1 Explain the import and export trade	Discuss the import and export trade	Books, Journals,	Discuss the shipment
	2.2 Explain the preliminary	export trade	Magazines,	preparation
	considerations and	Discuss the preliminary	CILT	process and
	procedures in export and	considerations and	Transport	documentation.
	import trade.	procedures in export and	Focus,	0.0000000000000000000000000000000000000
	2.3 Explain the export and import controls and	import trade.	Monograph, and Seaport	
	licenses.	Explain the export and	Bulletins	
	2.4 Explain export and import sales, packaging	import controls and licenses.		
	and finance.	Discuss export and import		
	2.5 Explain shipment preparation process and	sales, packaging and finance.		
	documentation	Explain the shipment		
		preparation process and		
		documentation.		
General	Objective 3.0: Appreciate the in	nportance of ocean shipping and	logistics management	
5-6	3.1 Define ocean shipping,	Define ocean shipping,	Books,	Discuss the roles
	logistics and logistics	logistics and logistics	Journals,	of logistics

	management	management.	Magazines,	management in
	3.2 Explain types and		CILT	ocean shipping.
	components of ocean	Explain types and	Transport	
	shipping	components of ocean	Focus,	
	3.3 Explain types and uses	shipping.	Monograph,	
	of ship and procedures		and Seaport	
	of ship registration.	Explain types and uses of	Bulletins	
	3.4 Explain the logistics	ship and procedures of ship		
	process in ocean shipping	registration.		
	3.5 Describe the actors in	Explain the logistics process		
	ocean shipping	in ocean shipping.		
	3.6 Explain forms of			
	logistics management in	Describe the actors in ocean		
	ocean shipping	shipping.		
	3.7 Explain the roles of			
	logistics management in	Explain forms of logistics		
	ocean shipping	management in ocean		
		shipping.		
		Explain the roles of logistics		
		management in ocean		
		shipping.		
General C	Objective 4.0: Comprehend base	ics of seaport management		
7-8	4.1 Define seaport and	Explain seaport and seaport	Books,	Outline the
	seaport management	management	Journals,	functions of a
	4.2 Explain the activities,		Magazines,	seaport.

			GYY TO	T	1
	functions and structure	Explain the activities,	CILT		
	of a seaport	functions and structure of a	Transport		Discuss port
	4.3 Explain port	seaport	Focus,		management and
	management and		Monograph,		administration in
	administration	Explain port management	and Seaport		Nigeria
		and administration	Bulletins		
General	Objective 5.0: Analyze the sign	ificance of multimodal transpor	t in freight cleari	ng and forwarding	
9-10	5.1 Define multimodal	Explain multimodal	Books,		Discuss the
	transport	transport	Journals,		challenges of
	5.2 Explain the multimodal	_	Magazines,		multimodal
	transport operations in	Discuss the multimodal	CILT		transport
	shipping industry	transport operations in	Transport		operations in
	5.3 Explain the multimodal	shipping industry	Focus,		Nigeria's
	transport requirements		Monograph,		shipping industry.
	for freight forwarding	Discuss the multimodal	and Seaport		
	5.4 Explain the constraints	transport requirements for	Bulletins		
	of multimodal transport	freight forwarding			
	operations in Nigeria's				
	shipping industry.	Discuss the constraints of			
		multimodal transport			
		operations in Nigeria's			
		shipping industry.			
General	Objective 6.0 : Familiarize with	11 0	ian Customs Ser	vice	1
11-12	6.1 Define legal framework	Define legal framework	Books,		Discuss the
	6.2 Trace the establishment		Journals,		establishment of
	of Nigerian Custom Service	Trace the establishment of	Magazines,		Nigerian Custom

6.3 Explain the Customs	Nigerian Custom Service	CILT		Service.
service regulation and policy		Transport		
in Nigeria	Discuss the Customs	Focus,		
6.4 Explain the	services, regulation and	Monograph,		
administrative structure of	policy in Nigeria	and Seaport		
Nigerian Custom Service.		Bulletins		
6.5 Explain the Nigerian	Discuss the administrative			
Custom Service clearance	structure of Nigerian Custom			
procedure.	Service.			
	Explain the Nigerian Custom			
	Service clearance procedure.			

Programme: Higher National Diploma (HND) in Transport Planning and Management									
Course Title:	TRANSPORT TECHNOLOGY	Code: TPM 422	Credit Hour: 3						
			Credit Unit:2						
		Pre-requisite:	Theoretical: 1 hours/week						
Year:1 Semester: 1			Practical 2 : hours/week						

Goal: The course is designed to provide students with knowledge and skills required in transport technologies.

General Objectives:

On completion of this course, students should be able to:

- 1.0 Appreciate automobile workshop equipment and machines.
- 2.0 Apply Critical Contemporary Issues (CCI)
- 3.0 Appreciate conceptual view of transport system
- 4.0 Appreciate ITS technologies in transport
- 5.0 Apply fundamentals traffic flow behavior and analysis
- 6.0 Appraise emerging technologies for automobile diagnosis and maintenance.

		IA IN TRANSPORT PLANNING AND				
	TITLE: TRANSPORT TECHNOLOGY			COURSE CODE: TPM 422	CONTACT HO	URS: 1-0-2
GOAL: The course is designed to provide students with knowledge and skills required in transport technologies						
	SPECIFICATION:	THEORETICAL CONTENTS		PRAC	TICAL CONTENTS	
General	objective 1.0 Appreciate automobile	e workshop equipment and machin	es			
WEEK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation
			Resource	s Objective	Activities	
1-2	 1.1 Explain the basic equipment/machines used in transport/automobile workshop. 1.2 Explain the functions of machines/equipment in the workshop. 1.3 Explain the procedure involve in the use of equipment. 1.4 Explain how to the maintain equipment in the workshop. 	equipment /machines used in automobile workshop. ii. Explain the functions of machines/ equipment in the workshop. iii. Explain the procedure involve in the use of equipment. iv. Explain how to the maintain equipment in	Books Journals Magazine CILT Transport Focus Bulletin			Discuss the functions of machines/ equipment in the automobile workshop
1.0	General Objective 2.0: Apply	the workshop. Critical Contemporary Issues (CCI)				
3-4	2.1 Explain the critical issues	s i. Explain critical issues	Books			Differentiat
	affecting transport system	0 1	Journals	_		e between
	2.2 Describe Transport System		Magazine	PS		transport
	Phases	Energy, Global Climate	CILT			system
	2.3 Explain transport system	Change, Urban Form,	Transport	t		phases and

	components	Population, Economic	Focus	transport
		development/growth,	Bulletin	system
		Environmental issues		component.
		ii. Explaining Transport		
		System Phases e.g.		
		Conceptualization,		
		Planning, Construction,		
		Operations/Maintenance		
		and commissioning,		
		Securit y.		
		iii. Explain transport system		
		components such as		
		infrastructure, power		
		system, control system		
		fuel system and vehicle		
		characteristics.		
1.0	General Objective 3.0: Apprec	iate conceptual view of transport	system	
5-6	3.1 Define transport model.	i. Explain transport model.		Discuss
	3.2 Explain the attributes of	ii. Describe the attributes of	Books	transport
	transport models	transport models e.g.	Journals	model and
	3.3 Explain the	complexity, accuracy,	Magazines	its
	types/categories of	data requirements,	CILT	attributes
	transport models	computational	Transport	in transport
	3.4 Describe the conceptual	requirements, estimation	Focus	systems.
	view of transport system	requirements etc.	Bulletin	
	3.5 Explain the inter-	iii. Explain types of model		Explain the
	relationship of transport	e.g. descriptive simulation		inter-

	system	models; systems of linear			relationship
		or non-linear equations;			of transport
		cross-sectional time-series			system
		and Optimization-			
		continuous or discrete			
		variables; linear or non-			
		linear functions			
		iv. Explain the conceptual			
		view of transport system			
		analysis			
		v. Explain inter-			
		relationship of transport			
		system e.g. Type I, Type			
		II and Type III			
General (Objective 4.0 Appreciate ITS tech	nnologies in transport			
7-9	4.1 Define Intelligent	i. Explain Intelligent	Books		
	Transportation System	Transportation System	Journals		
	(ITS)	(ITS)	Magazines		
	4.2 Outline components of	ii. Discuss components of			
	ITS.	ITS.			
	4.3 State the Fundamental ITS	iii. State the Fundamental ITS			
	Insights	Insight e.g. Technologies			
	4.4 State principles of	of communications,			
	electronic tolls	control, electronics and			
		computer hardware and			
		software; GPS etc.			
		iv. Discuss various fluids			

		Linkage of vehicle and		
		transportation e.g. ATMS-		
		Advanced Transportation		
		Management System; ATIS		
		-Advanced Traveler		
		Information System,		
		Vehicle-to-Vehicle		
		Communication; Advanced		
		Vehicle Control Systems		
		(AVCS), Advanced Traveler		
		Information Systems (ATIS)		
		etc.		
		v. Explain electronic toll		
		collections and its		
		fundamentals		
General	Objective 5.0: Apply fundamental	Is traffic flow behavior and anal	ysis	
10-11	5.1 Define traffic flow	i. Explain traffic flow		Explain
	5.2 Explain traffic flow as its	ii. Explain traffic flow as its	Books	traffic flow
	affects human behavior	affects human behavior	Journals	and its
	5.3 Explain the component of	iii. Explain component of	Magazines	effects on
	geometric design	geometric design e.g.	CILT	human
	5.4 Explain the principles of	Cross-sectional features,	Transport	behavior
	pavement design and	horizontal alignment,	Focus	
	analysis	vertical alignment and	Bulletin	Outline
	5.5 Explain factors	intersections.		factors
	influencing traffic flow	iv. Explain principles of		influencing
		pavement design and		traffic flow

General C	Objective 6.0: Appraise emerging tec		s and maintenan	ce.		
12-14	 6.1 Differentiate between diagnosis and maintenance. 6.2 Explain new technologies for vehicle diagnosis 6.2 Explain reasons for emerging technologies 6.3 Compare emerging and traditional technologies 6.4 Analysis report of automobile diagnosed problem 	 i. Explain emerging automobile diagnosis technologies. ii. Discuss the rationales for new technologies for diagnosis. iii. Explain types of diagnosing technologies iv. Analysis report of automobile diagnosed problem 	Books Journals Magazines	Analysis report of automobile diagnosed problem Take students to workshop to Carryout independent vehicle maintenance	Guide students to diagnose and analyze an automobile problem Guide students to carry out maintenance on of a vehicle.	

Programme: Higher National Diploma (HND) in Transport Planning and Management								
Course Title: TRANSPORT ECONOMICS	Code: TPM 423	Credit Hour: 2						
		Credit Unit:2						
	Pre-requisite:	Theoretical:2 hours/week						
Year:1 Semester: 1		Practical 0: hours/week						

Goal: The course is designed to provide students with knowledge and skills required in transport economics

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Appreciate the basic concept of transport economics
- 2.0 Appreciate international trade and transport
- 3.0 Appraise pricing and costing in transport services
- 4.0 Appreciate the role of transport in National economic development
- 5.0 Apply the concept of regulation and deregulation in transport.
- 6.0 Appreciate the investment opportunities in transport industry.
- 7.0 Apply management techniques in Transport Enterprise.

COURSE	COURSE TITLE: TRANSPORT ECONOMICS					IRSE CODE: TPM 423	CONTA	CT HOURS: 2
GOAL:T	he course is designed to provide stude	ents with I	knowledge and	d skills required i	in tra	nsport economics		
COURSE	SPECIFICATION:	THE	ORETICAL CON	ITENTS		PRACT	TICAL CONTENT	S
1.0	General Objective 1.0. Apprecia	te the bas	ic concept of	transport econo	omics	S		
WEEK	Specific Learning Objective	Teache	ers Activities	Learning		Specific Learning	Teachers	Evaluation
				Resources		Objective	Activities	
1-2	 1.1 Define economics. 1.2 Distinguish between macro and microeconomics. 1.3 Explain transport economics 1.4 Explain the principles of market situation in transport economics 1.5 Explain the importance of transport economics. 	ii. iii. v.	Explain the terms economics. Explain the difference between macro and micro economics. Explain transport economics Explain the principles of market situation in transport economics Explain the importance of transport economics.	Books, journals and other relevant materials	S			Discuss the importance of transport economics Explain transport economics

General	Objective 2.0: Appreciate internationa	al trade	and transport		
3	2.1 Define international trade 2.2 Explain the relationship between international trade and economic growth 2.3 Explain the theory of international trade 2.4 Explain the sources of Foreign Direct Investment 2.5 Explain the involvement of the state in the international trade flows	i. ii. iv. v.	Explain internationa I trade Explain the relationship between internationa I trade and economic growth Explain the theory of internationa I trade Explain the sources of Foreign Direct Investment Explain the involvemen t of the state in the internationa I trade	Books, Journals and other relevant materials	Discuss the relationship between international trade and economic growth Explain the theory of international trade
			flows		
1.0	General Objective 3.0: Appraise	pricin	g and costing in	transport services	
4	3.1 Define transport services	i. Ex	xplain	Books, journals	Discuss the
	3.2 Explain transport pricing and costing.		ansport ervices and its	and other	characteristic s of supply

	3.3 Explain the characteristics of supply and demand of transport services.	types e.g. relevant public and materials private	and demand of transport services.
	3.4 Differentiate between transport costing and pricing.3.5 Explain external transport costs and their containment	ownership. ii. Explain transport pricing and costing. iii. Explain the characteristics of supply and demand of transport services iv. Differentiate between transport costing and pricing v. Explain external transport costs and their containment	Differentiate between transport costing and pricing.
General C	Dbjective 4.0: Appreciate the role of		
5-6	 4.1 Define economic development 4.2 Explain the theory of economic growth 4.3 Explain the indices for measuring economic 	i. Explain Books, Journals economic and other development learning materials.	Discuss the influence of transport on human resources

	development	growth e.g.		
	4.4 Explain the roles of	Sources of		
	transport in economic	Long-Run		
	development.	Growth, The		
	4.5 Explain the influence of	Solow Growth		
		Model etc.		
	transport on human			
	resources 1.6 Generate demand and	iii. Explain the		
4		indices for		
	supply for passenger and	measuring		
	freight transport.	economic		
		development		
		e.g. HDI		
		(Human		
		Development		
		Index),		
		GDI(Gender		
		Development		
		Index), HPI		
		(Human		
		Poverty Index)		
		etc. but per		
		capita)		
		iv. Explain the		
		roles of		
		transport in		
		economic		
		development		
		e.g. GNP		
		(Gross National		
		Product) etc.		
		v. Describe the		

General (Objective 5.0: Apply the concept of r	tra hu re vi. Ex de su pa fre tra	emand and pply for essenger and eight ensport.	ion in Transport.		
7-8	5.1 Explain the concept of regulation and deregulation in transport 5.2 Explain government involvement in transport 5.3 Explain the benefits of deregulation. 5.4 Outline government instrument in transport development.	i. ii. iiv.	Explain the concept of regulation and deregulation in transport Explain government involvemen t in transport Explain the benefits of deregulation. Explain government instrument instrument in transport	Books. Journals and other relevant materials.		Discuss government involvement in transport Discuss government instrument in transport development.

		developmen t		
General (Dbjective 6.0: Appreciate the investm	nent opportunities in tra	nsport	
9-10	 6.1 Define investment opportunities in transport sector 6.2 Explain the criteria's for analysis in transport 6.3 Explain the rationales for government intervention in transport 6.4 Explain the financial appraisal of transport project. 	i. Explain investment opportunities. ii. Explain the criteria's for analysis in transport iii. Explain the rationales for government intervention in transport iv. Explain the financial appraisal of transport project.	Textbooks, Journals, Magazines	Discuss the rationales for government intervention in transport Explain the financial appraisal of transport project.
	Objective 7.0: Appreciate management		· · · · · · · · · · · · · · · · · · ·	15:
11-12	 7.1 Define transport enterprise 7.2 Highlight types of transport enterprise 7.3 Outline procedures of establishing transport enterprise 7.4 Highlight techniques for its 	 i. Explain transport enterprise ii. Discuss types of transport enterprise iii. Explain 	Textbooks, Journals, Magazines	Discuss types of transport enterprise

management	formation of	
	transport	
	enterprise	
	iv. Explain	
	management	
	principles of	
	transport	
	enterprise	

Programme: Higher National Diploma (HND) in Transport Planning and Management							
Course Title: RURAL TRANSPORT	Code: TPM 424	Credit Hour: 2					
OPERATIONS AND MANAGEMENT		Credit Unit:2					
	Pre-requisite:	Theoretical: 2 hours/week					
Year:1 Semester: 1		Practical:0 hours/week					
Goal: The course is designed to provide students with th	e required knowledge and skills in rural transport	olanning.					

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General Objectives:

On completion of this course, students should be able to:

- 1.0 Comprehend the rural demographic and economic considerations
- 2.0 Appraise the factors influencing rural transport
- 3.0 Comprehend the rural transport services
- 4.0 Apply the procedure for the preparation of rural transport plan
- 5.0 Comprehend the rural environmental protection and management strategies
- 6.0 Appraise rural development efforts in Nigeria.

PROGRA	MME: HIGHER NATIONAL DIPL	OMA IN TRANSPORT PLANN	IING AND MAN	AGEMENT		
COURSE	TITLE: RURAL TRANSPORT OPE	ERATION AND MGT.		COURSE CODE: TPM 424	СО	NTACT HOURS: 2
GOAL: Th	e course is designed to provide	students with the required l	knowledge and	skills in rural transport plan	ning	
COURSE	SPECIFICATION:	THEORETICAL CO	ONTENTS	PRA	PRACTICAL CONTENTS	
General (Objective 1.0: Comprehend the	rural demographic and eco	nomic considera	ntions		
WEEK	Specific Learning Objective	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Evaluation
1-2	1.1 Define rural demographic and economic considerations 1.2 Explain the features of rural demographic 1.3 Explain the importance of rural demographic with respect to economic considerations. General Objective 2.0: App	i. Define rural demographic and economic considerations ii. Explain the features of rural demographic iii. Explain the importance of rural demographic with respect to economic considerations.	Books, journa	Is		Discuss rural demograph ic and economic considerati ons
3-4	2.1 Define rural transport 2.2 Explain factors that	i. Explain rural transport ii. Explain factors that	Books, journa	als		Discuss the factors that affects

affects rural transport	affects rural	rural
2.3 Explain changes in	transport e.g.	transport
rural economy	changes in	
2.4 Explain regional	social and	
population and	demographic	
democratic change	trends,	
	agriculture,	
	employment,	
	the strength of	
	local	
	economies, and	
	politically	
	sensitive items	
	such as welfare	
	reform	
	iii. Explain changes	
	in rural	
	economy e.g.	
	industrial	
	agriculture,	
	employment,	
	private service	
	industries	
	iv. Explain regional	
	population and	
	demographic	
	changes e.g.	
	Migration to	
	urban centers,	
	Services shifted	
	to large centers	

			and People driving longer distances etc.			
Genera	al Objective 3.0: Comprehend the i	rural tra	ansport services			
5-6	3.1Define rural transport	i.	Explain rural	Books, journals		Explain the
	services		transport			features of
			services			rural transit
	3.2 Explain the process of	ii.	Explain the			services
	rural transport services		process of rural			
			transport			
	3.3 Explain rural transport		services			
	demand, supply and	iii.	Explain rural			
	pattern.		transport			
			demand, supply			
	3.5 Define rural transit		and pattern.			
	services	iv.	Describe rural			
			transit services			
	3.6 Explain the features of	V.	Explain the			
	rural transit services		features of rural			
			transit services			
	3.7 Explain public transit in	vi.	Explain public			
	rural communities		transit in rural			
			communities			
Genera	al Objective 4.0: Apply the proced	lure for	the preparation of r	ural transport plan		
7-8	4.1 Define transport plan	i.	Explain	Books, journals,		Discuss
	4.2 Explain the vision and		transport plan			the
	mission of transport	ii.	Explain the			principles
	plan		vision and			of public
	4.3 Give procedure for		mission of			participati

	v.	transport. Explain the financial strategy for plan, preparation and implementation of rural				
ctive 5 0: Comprehend the r	rural env		on and management	 t strategies		
ctive 5.0. Comprehend the r	urai EllV	monnientai protecti	on and management	i sii alegies		
.1 Define rural and environmental protection .2 Define management strategies .3 Explain rural natural environment .4 Explain endanger species in rural		environmental protection splain management strategies Explain of rural natural environment	Books, journals			Discuss the techniques for evaluating potential impacts on rural
	1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment 4 Explain endanger	1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment iii. Explain endanger species in rural	financial strategy for plan, preparation and implementation of rural transport. Stive 5.0: Comprehend the rural environmental protection 1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment 4 Explain endanger species in rural financial strategy for plan, preparation and implementation of rural environmental protection ii. Explain management strategies iii. Explain of rural natural environment	financial strategy for plan, preparation and implementation of rural transport. ctive 5.0: Comprehend the rural environmental protection and managemen 1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment 4 Explain endanger species in rural financial strategy for plan, preparation and implementation of rural environmental protection and managemen Books, journals ii. Explain management strategies iii. Explain natural environment environment environment environment environment	financial strategy for plan, preparation and implementation of rural transport. The strice 5.0: Comprehend the rural environmental protection and management strategies 1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment strategies 3 Explain rural natural environment iii. Explain of rural 4 Explain endanger species in rural environment iii. environment iii. Explain of rural natural environment environment iii. environment	financial strategy for plan, preparation and implementation of rural transport. ctive 5.0: Comprehend the rural environmental protection and management strategies 1 Define rural and environmental protection 2 Define management strategies 3 Explain rural natural environment 4 Explain endanger species in rural financial strategy for plan, preparation and implementation of rural environmental protection and management strategies i. Explain rural and environmental protection ii. Explain strategies iii. Explain of rural and environment iii. Explain of rural environment environment environment environment

	5.5 Explain the techniques for evaluating potential impacts on rural environment 5.6 Explain the strategies and legislations for environmental Protection	land) iv. Explain endanger species in rural environment v. Explain the techniques for evaluating potential impacts on rural environment vi. Explain the strategies and legislations for environmental vii. protection			
General O	6.1 Explain the rationales for rural development programmes 6.2 Trace rural development programmes in Nigeria 6.3 Trace stakeholders in rural development programme 6.4 Explain the problems and prospect of rural	i. Explain the rationales for rural development programmes ii. Trace rural development programmes in Nigeria iii. Trace stakeholders in rural development	Books, journals		Discuss the problems and prospect of rural developm ent programm e

development programme 6.5 Explain rural development programmes in Nigeria	programmes e.g FGN, WB, IMF, FAO,CBN e iv. Explain problems and prospects of rural development programmes v. Explain rural development prorammes e.g.ADP, RBDAs, DIFFRI, Rural Access and
	Access and Mobility Project etc.

Programme: Higher National Diploma (HND) in Transport Planning and Management					
Course Title: LOGISTICS AND SUPPLY CHAIN	Code: TPM 425	Credit Hour: 2			
MANAGEMENT		Credit Unit:2			
	Pre-requisite:	Theoretical:2 hours/week			
Year:1 Semester: 1		Practical 0 : hours/week			

Goal: This course is designed to provide students with required knowledge and skills in logistics and supply chain management.

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Comprehend the meaning and concepts of logistics
- 2.0 Comprehend the concepts of supply chain management
- 3.0 Appreciate the art of physical distributions, operations and process.
- 4.0 Appreciate warehousing/ storage operations as vital component of logistic functions.
- 5.0 Comprehend handling systems and equipment used in logistics and supply chain operations.
- 6.0 Comprehend the parcel delivery/courier service operations.
- 7.0 Appreciate emerging concepts in logistics and supply chain management
- 8.0 Comprehend the logistics operations in Nigeria

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT COURSE TITLE: LOGISTICS AND SUPPLY CHAIN MANAGEMENT GOAL: This course is designed to provide the students with required knowledge and skills in logistics and supply chain management COURSE SPECIFICATION: General objective 1.0: Comprehend the nature and components of logistics WEEK Specific Learning Objective Teachers Activities Learning Resources Specific Learning Objective Activities Evaluation

WEEK	Specific Learning Objective	Teach	ers Activities	Learning	Specific Learning	Teachers	Evaluation
				Resources	Objective	Activities	
1	1.1 Define Logistics and supply chain	i.	Explain	Books			Discuss types of
	management		Logistics	Journals			logistics and
	1.2 Explain types of logistics and		and supply	Magazines			supply chain
	supply chain management		chain	CILT Transport			management
	1.3 Trace logistics in 21 st Century		manageme	Focus			
	1.4 Explain Customer Service		nt	Bulletin			
		ii.	Explain				
			types of				
			logistics				
			and supply				
			chain				
			manageme				
			nt e.g.				
			grocery,				
			food,				
			prints,				
			human,				
			petroleum				

		products, commoditi es iii. Trace logistics in 21st Century iv. Explain Customer Service		
General objective 2.0:	Comprehend the concepts of supply	chain management		
2	2.1 Give definition of Supply Chain Management: 2.2 State the development of supply chain management 2.3 Give the nature and Concept of supply chain 2.4 State the components of Supply Chain 2.5 State the importance of Supply Chain 2.6 Explain Value Chain and participants in Supply Chain	i.Give definition of Supply Chain Management: ii. Explain		

		imp	ortance of				
		Sup	ply Chain				
		vi. Ex	xplain Value				
		Cha	in and				
		part	icipants in				
		Sup	ply Chain				
General Object	ctive 3.0: Appreciate art of physical distribution	is, oper	ations and process	5.			
3-4	3.1 Define physical distribution	i.	Explain physic	al	Books		Explain
	and operation process		distribution and	d	Journals		channel of
	3.2 Explain channel of		operation		Magazines		distributio
	distribution and logistics		processExplain	1	CILT Transpo	ort	n and
	process.		channel of		Focus		logistics
	3.3 Explain route and schedule		distribution and	d	Bulletin		process.
	in logistics.		logistics proces				
	3.4 Explain process of	ii.	Explain route a	and			
	distribution.		schedule in				
			logistics.				
		iii.	Explain proces	s of			
			distribution				
			e.gconsolidatio	on,			
			distribution,				
			fragmentation				
Gonoral Object	ctive 4.0: Appreciate warehousing enerations a	s vital s	component of logic	tice fun	ctions		<u> </u>
5-6	ctive 4.0: Appreciate warehousing operations a 4.1 Define terms warehousing	i.	Explain the ter		CUOIIS		Explain
J-0	4.2 Explain the types of	1.	warehouse	11115			factors to
	7.2 DAPIGITI THE TYPES OF		warenouse				140101510

	warehousing		e.gstocks,		be
	4.3 Identify warehousing		warehousing,	Books	considered
	operations.		warehouse, depots,	Journals	in locating
	4.4 Explain factors to be		unit load,	Magazines	warehousi
	considered in locating		consignment,	CILT Transport	ng
	warehousing		storage	Focus	
	4.5 Explain warehouse storage	ii.	Explain the types of	Bulletin	
	equipment		warehousing		
	4.6 Define inventory	iii.	Identify warehouse		
	management		operations.		
		iv.	Explain factors to be		
			considered in		
			locating warehouse		
		V.	Explain warehouse		
			storage equipment		
		vi.	Explain inventory		
			management		
			C		
General Objective 5.0	: Comprehend handling systems and e	u quipmer	nt used in logistics and op	erations management	
7-8	Explain handling of equipment	i.	Explain handling of	Books	Discuss
	in warehousing		equipment in	Journals	the
	5.2 Explain the principles of		warehousing	Magazines	principles
	operating warehouse		e.gcranes, forklifts,	CILT Transport	of
	equipment.		conveyor belt,	Focus	operating
	5.3 Discuss powered industrial		elevator etc.	Bulletin	warehouse
	trucks and attachment.	ii.	Explain the		equipment

	5.4 Explain how to maintain		principles of			
	warehouse equipment		operating warehouse			
			equipment.			
		iii.	Describe powered			
			industrial trucks and			
			attachment.			
		iv.	Explain how to			
			maintain			
			warehouse			
			equipment			
General Objective 6.	0: Comprehend parcel delivery/courier	service o	operations			•
9-10	6.1 Define parcel delivery	i.	Explain parcel	Books		Discuss
	/courier service operations		delivery /courier	Journals		the
	6.2 Trace the history of parcel		service operations	Magazines		importanc
	delivery/courier service	ii.	Explain the history	CILT Transport		e of parcel
	operations		of parcel	Focus		delivery to
	6.3 Explain the operations and		delivery/courier	Bulletin		national
	patronage of parcel delivery		service operations			economy
	service	iii.	Explain the			
	6.4 Explain parcel delivery		operations and			
	regulations and operations		patronage of parcel			
	in Nigeria		delivery service			
	6.5 Explain the importance of	iv.	Explain parcel			
	parcel delivery to national		delivery regulations			
	economy		and operations in			
	6.6 Explain the threats to parcel		Nigeria			

	delivery, operation and service	v. vi.	Explain the importance of parcel delivery to national economy Explain the threats			
			to parcel delivery, operation and service			
General Objective 7.0:	Appreciate emerging concepts in logis	tics and	l supply chain			
11-12	7.1 Explain the concepts in	i.	Explain the	Books		Discuss
	logistics and supply chain.		concepts in logistics	Journals		the
	7.2 Explain the hub and spoke		and supply	Magazines		importanc
	model		chain.e.g. Just-in-	CILT Transport		e of
	7.3 Explain the importance of		time, just-in-place,	Focus		logistics/in
	logistics/intermodal concepts		reliability, quality, distribution,	Bulletin		termodal concepts
	7.4 Explain the principles of		flexibility etc.			· · · · · · · · · · · · · · · · · · ·
	home shopping.	ii.	Explain the hub and			
	7.5 Trace the emerging trends in		spoke model			
	logistics.	iii.	Explain the			
			importance of			
			logistics/intermodal			
			concepts e.g.			
			piggyback, fishy			
			back, air truck,			

		iv.	spoke and hub; point to point etc. Explain the principles of home shopping. Explain the emerging trends in logistics		
General Objective 7.0 13-14	7.1 Explain the roles of logistics in national development. 7.3 Explain haulage structure/operations 7.4 Explain key operators in Nigeria logistics NIPOST, Dangote Group, FedEx, DHL, UPS, EMS, Mersk, Panapina etc. 7.5 State logistics operators in Nigeria 7.6 Explain regulations for logistics industry 7.7 Explain constraints to logistics operations in the country	in Niger i. ii. iii. v.	Explain the roles of logistics in national development. Explain haulage structure/operations Explain key operators in Nigeria logistics NIPOST, Dangote Group, FedEx, DHL, UPS, EMS, Mersk, Panapina etc. State logistics operators in Nigeria Explain regulations	Books Journals Magazines CILT Transport Focus Bulletin	Explain logistics operators in Nigeria Discuss constraints to logistics operations in the country

	for logistics industry		
vi.	Explain constraints to		
	logistics operations in		
	the country		

Programme: Higher National Diploma (HND) in Transport Planning and Management					
CourseTitle: MARITIME TRANSPORT	Code: TPM 426	Contact Hour: 2-0			
OPERATIONS AND MANAGEMENT		Credit Unit: 2.0			
	Pre-requisite: No	Theoretical: 2 hours/week			
Year:1 Semester: 1		Practical: 0 hours/week			

Goal: The course is designed to provide students with the knowledge and skill of operations in the maritime industry.

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Comprehend the nature and characteristics of maritime industry
- 2.0 Appraise seaports operations
- 3.0 Analyse the structure of shipping company and shipping market.
- 4.0 Appreciate maritime policies
- 5.0 Comprehend the structure of the Nigerian maritime industry
- 6.0 Appreciate maritime safety and security

PROGE	RAMME: HIGHER NAT	IONAL DIPLOMA IN	TRANSPORT PLAN	NNING AND MANAGEMEN	T				
	SE TITLE: MARITIME T			COURSE CODE: TPM 426	CONTACT HOU	RS: 2-0-0			
GOAL:	GOAL: The course is designed to provide students with the knowledge and skill of operations in the maritime industry								
COURS	COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS								
General	objective 1.0: Comprehend	the nature and character	ristics of the maritime	industry					
WK	Specific Learning	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation			
	Objective		Resources	Objective	Activities				
1-2	1.1 Define Maritime	Explain Maritime	Books,			Discuss the			
	transport	transport	Journals,			nature and			
	1.2 Explain the		,			characteristi			
	characteristics of	characteristics of the	CILT/CIoTA			cs of			
	the maritime	maritime industry	Bulletin,			maritime			
	industry	Explain maritime	Websites,			industry			
	1.3 Explain maritime	_	Research reports,						
	industry facilities and	provisions	Newspapers,						
	provisions		Policy documents,						
			drones,						
			GPS, Manuals,						
			maps, GIS, Camera						
General	Objective 2.0: Appraise se	aport operations							
3-4	2.1 Define the seaport	Explain the seaport	Books,			Discuss the			
	2.2 Explain the nature	Explain the nature of	Journals,			nature of			
	of seaport operations	seaport operations	Magazines,			seaport			
	2.3 Analyse	Analyse	CILT/CIoTA			operations			
	organizational	organizational	Bulletin,						
	structure of seaport	structure of seaport	Websites,						
	2.3 Appraise seaport	Appraise seaport	Research reports,						
	facilities for	facilities for	Newspapers,						
	operations	operations	Policy documents,						
	2.4 Appreciate the	Appreciate the roles	drones,						

	roles and	and responsibilities of	GPS, Manuals,		
	roles and responsibilities of	various agencies in	, , , , , , , , , , , , , , , , , , ,		
	_	_	maps, GIS, Camera		
	various agencies in	seaport operations.			
C 1	seaport operations.				
	Objective 3.0: Analyse the			et.	
5-6	3.1 Define shipping	Explain shipping	Books,		Discuss
	company and shipping	company and	Journals,		factors for
	market	shipping market	Magazines,		success and
	3.2 Analyse the process	3.2 Analyse the	CILT/CIoTA		failure of
	of establishing shipping	process of	Bulletin,		shipping
	company	establishing shipping	Websites,		company
	3.3 Apply the	company	Research reports,		operations
	procedures for fleets	3.3 Apply the	Newspapers,		
	acquisition and	procedures for fleets	Policy documents,		
	expansion	acquisition and	drones,		
	3.4 Analyse the nature	expansion	GPS, Manuals,		
	of market in shipping	3.4 Analyse the	maps, GIS, Camera		
	industry	nature of market in	maps, Gro, Camera		
	3.5 Appraise factors for	shipping industry			
	success and failure of	3.5 Appraise factors			
	shipping company	for success and			
	operations	failure of shipping			
	operations	company operations			
		company operations			
General	Objective 4.0: Appreciate	maritime policies		<u> </u>	
9-10	4.1 Comprehend	i. Comprehend	Books,		Explain the
7 10	evolution of maritime	evolution of	Journals,		objectives
	policies	maritime policies	Magazines,		of maritime
	4.2 Analyse the	globally.	CILT/CIoTA		policies in
	3	ii. Analyse the	Bulletin,		-
	objectives of maritime	_	· · · · · · · · · · · · · · · · · · ·		Nigeria
	policies	objectives of	Websites,		

Genera	4.3 Appraise the effectiveness of maritime policies in Nigeria.	maritime policies iii. Appraise the effectiveness of maritime policies in Nigeria.	Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera gerian maritime industr	y	
11	5.1 Analyse the structure of the Nigerian maritime industry 5.2 Explain the roles of each in 5.1 to the nation's development 5.3 Analyse the legal frameworks for each in 5.1	Analyse the structure of the Nigerian maritime industry Explain the roles of each in 5.1 to the nation's development Analyse the legal frameworks for each in 5.1	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers, Policy documents, drones, GPS, Manuals, maps, GIS, Camera		Examine the legal framework for the maritime industry in Nigeria
General	Objective 6.0: Appreciate	maritime safety and seco	urity		
12-13	6.1 Define maritime safety and security6.2 Explain the maritime safety conventions6.3 Explain the maritime security conventions6.4 Appraise risk and threat assessment	Explain maritime safety and security Explain the maritime safety conventions Explain the maritime security conventions Appraise risk and threat assessment	Books, Journals, Magazines, CILT/CIoTA Bulletin, Websites, Research reports, Newspapers,		Discuss risk and threat assessment methods in maritime operation
	methods in maritime	methods in maritime	Policy documents,		

operation	operation	drones, GPS, Manuals,		
		maps, GIS, Camera		
		SOLAS convention		
		and ISPS Code		

Programme: Higher National Diploma (HND) in Transport Planning and Management					
Course Title: PROFESSIONAL ETHICS AND PRACTICE IN TRANSPORT	Code: TPM 427	Credit Hour:3 Credit Unit:2			
	Pre-requisite:	Theoretical: 2 hours/week			
Year:1 Semester: 1		Practical 0 : hours/week			

Goal: This course is designed to ensure that students understand the importance of ethical considerations in every aspect of transport planning and operations.

General Objectives:

On completion of this course, students should be able to:

- 1.0 Comprehend profession and professionalism
- 2.0 Appreciate professionalism in transport
- 3.0 Comprehend the nature of professional organizations in the society/built environment.
- 4.0 Appreciate the provisions for transport cadre in public and private sectors
- 5.0 Comprehend the instruments for practicing transport profession
- 6.0 Comprehend the code of professional conduct and practice of Transport
- 7.0 Appreciate the nature and scope of professional/consultancy services in transport

PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT

COURSE TITLE: PROFESSIONAL PRACTICE IN TRANSPORT

COURSE CODE: TPM 427

CONTACT HOURS: 2

GOAL:This course is designed to ensure that students understand the importance of ethical considerations in every aspect of transport planning and operations.

COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS

General Objective 1.0: Comprehend profession and professionalism

WEEK	Specific Learning Objective	Teache	ers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Evaluation
1	 1.1 Define profession, professionalism and professional. 1.2 Explain the evolution and features of profession 1.3 Explain the historical development of profession. 	ii. iii.	Define profession, professional ism and professional Explain evolution and features of profession Explain the historical developmen t of profession.	Books, journals, and internet			Discuss the historical developme nt of profession.

General Objective 2.0: Appreciate professionalism in transport

2-3	2.1 Explain transport as	i.	Explain	Books, journals,		Discuss the
	a profession.		transport as	and internet		component
	2.2 Explain the		a			of transport
	components of		profession.			profession.
	transport profession.	ii.	Explain the			profession.
	2.3 Explain the role of		components			
	government in the		of transport			
	profession of		profession.			
	transport	iii.	Explain the			
			role of			
			government			
			in the			
			profession			
			of transport			
General (Objective 3.0: Comprehend the	e nature	of professional	organizations in the	e society/built environment.	
	0.15 %			T	T	In:
3-4	3.1 Define professional	i.	Explain	Books, journals,		Discuss
	organization		professional	and Internet		the nature
	3.2 Explain		organization			of synergy
	professionals in the	ii.	Explain			among the
	built environment.		professional			Nigerian
	3.3 Explain the features		s in the built			profession: 1 bodies
	of each professional	iii.	environment			1 bodies
	organization in the built environment	111.	Explain the features of			
			each			
	3.4 Explain the function and responsibilities		professional			
	of professional		organization			
	organizations.		in the built			
	3.5 Explain professional		environment			
	bodies in Nigerian	iv.	Explain the			
	bodies ili Nigeriali	IV.	Explain tile			

1 1/4		C 1: 1	1		
built environment		function and			
3.6 Explain legal		responsibilit			
framework of the		ies of			
professional bodies		professional			
in the built		organization			
environment.		S.			
3.7 Explain the nature of	v.	Explain			
synergy among the		professional			
Nigerian		bodies in			
professional bodies		Nigerian			
		built			
		environment			
		egAPBN,			
		NSE,			
		COREN,			
		NITP,			
		TOPREC,			
		NIA,			
		ARĆON,			
		NIS,			
		SURCON,			
		NIOB,			
		CORBON			
	vi.	Explain			
		legal			
		framework			
		of the			
		professional			
		bodies in			
		the built			
		environment			

General	Objective 4.0 Appreciate the	i. Discuss the	ort cadre in public Books,	and private sectors	Explain the
	National Council on Transport 4.2 Explain transport cadre in civil/public and private practice 4.3 Outline the requirement(s) for cadre migration and upgrading in civil/public and private sector	composition and responsibilities of the National Council on Transport ii. Explain the establish cadre for transport in public and private practice iii. Explain the requirements for cadre migration and upgrading in public and private sector	Journals, Circulars and Internet, Newsletter Bulletin		established cadre for transport in public and private sector.
General 6-9	Objective 5.0: Comprehend the 5.1 Explain the	Explain the	ing transport profe	ssion	Discuss
	procedures for membership of professional	procedures for membership of professional	of the chartered ILT in UK and		the laws establish ing the

	organization. 5.2 Explain the rights and duties of professional member. 5.3 Explain the laws establishing the Chartered Institute of Logistics and Transport and Institute of transport Administration in Nigeria. 5.4 Examine the contents of the laws	organization e.gCIoTA and CILT 5.5 Explain the rights and duties of professional member. 5.6 Explain the laws establishing the Chartered Institute of Logistics and Transport and Institute of transport Administration in Nigeria. 5.7 Describe the contents of the laws.	Nigeria CILT, CIoTA and CILT handbook, Annual report; conference proceedings		Chartere d Institute of Logistics and Transport and Institute of transport Adminis tration in Nigeria.
General C	Objective 6.0: Comprehend the	e code of professional co	onduct and practice	of Transport	
10-11	5.1 Define code of practice as its relate to professional conduct 5.2 Explain the code of professional conduct and practice of the	i. Explain code of practice as its relate to professional conduct ii. Explain the	Professional code of conduct and practice in Nigeria and the UK, CIoTA and CILT handbook,		Discuss the professio nal obligatio ns in the code of

profession.		code of	Annual report;		professio
5.3 Explain the code in		professional	conference		nal
all activities of the		conduct and	proceedings		conduct
transport		practice of			and
5.4 Explain professional		the			practice
integrity in the code		profession.			
of professional	iii.	Explain the			
conduct and practice		code in all			
5.5 Explain the		activities of			
professional		the transport			
obligations in the	iv.	Explain			
code of professional		professional			
conduct and practice		integrity in			
5.6 Examine the ethics		the code of			
of the profession		professional			
		conduct and			
		practice			
	V.	Explain the			
		professional			
		obligations			
		in the code			
		of			
		professional			
		conduct and			
		practice			
	vi.	Explain the			
		ethics of the			
		profession			

12-14	6.1 Differentiate between	i.	Differentiat	Professional	Discus
	consultancy and		e between	code of conduct	the
	consultant		consultancy	and practice in	challe
	6.2 Explain consultancy in transport services 6.3 Explain the procedure for consultancy services. 6.4 Explain the challenges of consultancy services in transport	ii. iii. iv.	and consultant Explain consultancy in transport services Explain the procedure for consultancy services. Explain the challenges of consultancy	Nigeria and the UK, CloTA and CILT handbook, Annual report; conference proceedings	s of consucy service in transp

Programme: Higher National Diploma (HND) in Tr	ransport Planning and Management	
Course Title: PROJECT	Code: TPM 428	Credit Hour: 3
1 ROJEC 1		Credit Unit:3
	Pre-requisite:	Theoretical:3 hours/week
Year:1 Semester: 1		Practical 0: hours/week

Goal: This course is designed to enable the student demonstrate skill in research, and in undertaking independent study on Transportation Planning and management.

General Objectives:

On completion of this course, the student should be able to:

- 1.0 Appreciate the purpose of undertaking project in Transport Planning and Management.
- 2.0 Appreciate the common problems associated with project and independent study
- 3.0 Appreciate how to collect, collate, interpret and present data in a research work.
- 4.0 Appreciate the stages involved in terminal project.
- 5.0 Present terminal project for internal and external assessment

PROGRA	PROGRAMME: HIGHER NATIONAL DIPLOMA TRANSPORT PLANNING AND MANAGEMENT										
	TITLE: PROJECT			SE CODE: TPM 428		THOURS:1-0-2					
GOAL: T	his course is designed to enable	the student know how to u	ndertake a detailed	d independent study on	transportation plar	ning and					
Manageme	Management										
COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS											
Ge	neral Objective 1.0: Appreciate	the purpose of Project.									
WEEK	Specific Learning Objective	Teachers Activities	Learning	Specific Learning	Teachers	Evaluation					
			Resources	Objective	Activities						
1	1.1 Explain project in relation	1 1 0	Books, Journals								
	to transport planning and	in relation to	and other								
	management	transport	relevant								
	1.2 Explain the importance of		materials.								
	project	management									
		ii. Explain the									
		importance of									
		project									
General O	bjective 2.0: Appreciate the c	ommon problems associate	ed with project								
	2.1 Explain choice of project	i. Explain how	Conference								
	topic	topics are chose	papers and								
	2.2 Differentiate between	ii. Explain different	literature from								
	researchable and non-	type of resources	FMT, NSC,								
	researchable topics	iii. Explain the	NPA, FRSC								
	2.3 Enumerate problems	importance of	etc.								
	expected on the field e.g.	transportation									
	questionnaire	resources									
	administration gathering										
	data etc.	solution to									
	2.4 Explain how to solve	identified									
	identified problems	problems with									
	importance of	project work.									

	transportation resources				
General Ob	jective 3.0: Appreciate how to co	ollect, interpret and pres	ent data		
	3.1 Explain methods of data collection 3.2 Distinguish between various sampling techniques 3.3 Describe methods of data interpretation 3.4 Describe methods of data presentation	 i. Explain methods of data collection ii. Explain the various sampling techniques iii. Describe data interpretation and presentation 	Conference papers and literature from FMT, NSC, NPA, FRSC etc		
General Ob	jective 4.0: Appreciate the stage	s involved in terminal p	roject		
	 4.1 Explain the arrangement of ideas in a sequence. 4.2 Provide the completed work 4.3 Bind the work in book form 4.4 Present the project individually to assessors 	i. Explain idea in sequenceii. Guide student to produce the completed work	Past projects		

Programme: Higher National Diploma (HND) in Transport Planning and Management									
Course Title: TRANSPORT PLANNING	Code: TPM 429	Credit Hour: 5							
DESIGN VIII (SEAPORT FACILITY DESIGN)		Credit Unit: 3							
	Pre-requisite:	Theoretical: 1 hours/week							
Year:1 Semester: 1		Practical 4: hours/week							

Goal: The course is designed to equip students with knowledge and skills to plan, design and inspect seaport facilities

General Objectives:

On completion of this course, students should be able to:

- 12.0 Comprehend seaport facilities
- 13.0 Assess the factors in the planning and design of seaport facility components
- 14.0 Apply safety regulation within the seaport facility
- 15.0 Describe the inspection of facilities in a seaports
- 16.0 Prepare plan and technical report for seaport facility

PROG	PROGRAMME: HIGHER NATIONAL DIPLOMA IN TRANSPORT PLANNING AND MANAGEMENT									
	SE TITLE: TRANSPORT PLAN ITY DESIGN)	NNING DESIGN VII (SEAPOR	T	COU	RSE CODE: TPM 429	CONTACT HO	URS: 5			
GOAL	GOAL: The course is designed to equip students with knowledge and skills to plan, design and inspect seaport facilities									
COURSE SPECIFICATION: THEORETICAL CONTENTS PRACTICAL CONTENTS										
Genera	l objective 1.0 Comprehend seapo	ort facilities		,						
WK	Specific Learning Objective	Teachers Activities	Learning		Specific Learning	Teachers	Evaluation			
			Resource	s	Objective	Activities				
1-2	functions of seaport facilities. 1.15 Apply spatial planning requirements for seaport facility planning and design.	of seaport facility and its components. 1.18 Explain the features of seaport facilities. 1.19 Explain the types and functions of seaport facilities. 1.20 Apply spatial planning requirements for seaport facility planning and design.		d			Discuss the concept of seaport facility.			
Genera	2.1 Explain the components for designing seaport facilities. 2.2 Explain the scope,	Explain the components for designing seaport facilities. Explain the scope,	Relevant textbooks, Maps,		Demonstrate the uses of the components and techniques for	Guide students to: Use the	Discuss the factors that influence seaport			

principles and techniques for designing seaport facilities. 2.3 Explain the factors that influence seaport facility design. 2.4 Apply spatial planning requirements and standards for seaport facility design.	principles and techniques for designing seaport facility. Explain the factors that influence seaport facility design Apply spatial planning requirements and standards for seaport facility design.	Research report, and Computer Units.	designing seaport facilities. Illustrate the components of a seaport. Design and interpret the layout for a seaport	components and techniques for designing seaport facilities. Illustrate the components of a seaport. Design and interpret the layout for a	facility design.
17.0 General Objective 3.0: Apply saf	aty regulation within the seano	rt facility		seaport	
					D: 0.
2.6 Define Personal Protective	Apply safety regulation on	Books,	Demonstrate the usage	Guide students	Discuss safety
Equipment (PPEs).	seaport facilities	Journals,	of Personal Protective	to use the PPEs	regulation and
2.7 Apply safety regulation on		Magazines,	Equipment (PPEs)	within seaport	rules in
seaport facilities	that affect seaport facilities	CILT/CIoTA	within the seaport	facility	seaport
2.8 Explain types of disaster		Bulletin, and	facility		facility
that affect seaport		research			
facilities		reports			
General Objective 4.0: Describe the insp					
4.1Explain Inspection of a	Explain Inspection of a	Books	Carry out the process	Guide students	Discuss the
facility	facility	Journals	of inspecting a seaport	through the	methods and
4.2 Explain the methods of	Explain the methods of	Manuals	facility	process of	process of
inspecting a seaport facility	inspecting a seaport facility	Base Maps		inspecting a	inspecting a
4.3 Explain the concept of	Explain the concept of	Drawing		seaport facility	seaport
inspecting a seaport facility	inspecting a seaport facility	Materials			facility.
		Cameras			

			GPS etc.			
General Objective 5.0: Pr	repare plan and te	echnical report for seaport fac	ility			
5.8 Explain a pl technical rej seaport facil 5.9 Explain how plan report	an and port of a lity v to write a how to write a port on a	Explain a plan and technical report of a seaport facility Explain how to write a plan report Explain how to write a technical report on a seaport facility		5.1 Prepare a plan and technical report of a seaport facility	Guide students to Prepare a plan and technical report of a seaport facility	Discuss a technical report of a seaport facility

PHYSICAL FACILITIES FOR TRANSPORT PLANNING & MANAGEMENT (ND & HND):

- a) CLASSROOMS/DRAWING STUDIOS
- b) DRIVING/TRAFFIC SIMULATOR LABORATORY
- c) TRAFFIC INFORMATION/GIS LABORATORY
- d) AUTOMOBILE WORKSHOP
- e) EXHIBITION ROOM
- f) DRIVING RANGE
- g) MECHANICAL/SOIL MECHANICS LABORATORY (Shared Facility)
- h) RESOURCE CENTRE

[A] List of Minimum Resources n the Classrooms/Drawing Studios.

a) 2Nos. Standard Classrooms/Drawing Studios each for ND & HND Levels to accommodate at least 40 students at a time.

S/N Tool/Equipment No Required

- 1. Standard Drawing Boards with Drafting Machine 40
- **2.** Light Table 2
- **3.** Standard Stools 40
- 4. Set of White Board Drawing Instruments2
- **5.** Overhead Projector
- **6.** Projector Screen 1
- **7.** Slide Projector 1
- **8.** Drawing Cabinets 4
- **9.** Set of Drawing Pen 2 sets
- **10.** Lettering Set 2 sets
- 11. Adjustable Square 2
- **12.** Exhibition Board Fitted with Stands 2

- 13. Large Table of Enlargement and Reduction
 14. Scientific Calculator 1
 15. Circle Template 2
 16. French Curve 2
 17. Ellipse Template 2
 18. Fixture Template 2
 19. Flexible Curve 3
 20. Standard T-Square 40
 21. Pencil Sharpeners 2
 22. Pocket Stereoscope 5
 23. Scale Rules 2
- [B] List of Minimum Resources in the Driving/Traffic Simulator Laboratory (ND & HND)

S/N Tool/Equipment No Required

- 1. Auto Counter (Metro Count Classifier 1
- **2.** Car Driving Simulator 2
- **3.** Traffic Cone
- **4.** Traffic Bar 5
- 5. Road Survey Sign Post
- **6.** Wireless Mobile Traffic Monitoring and DATA Collection System
- 7. Traffic Analyzer (On-Pavement Sensor) for Count and Speed Measurement 1
- **8.** Automatic Traffic Recorders 1
- 9. Radar Speed Guns 1
- **10.** Functional Computer System
- 11. RS-600 Driving Simulator Model Designed for use in Ground Vehicle Training and Assessment Applications

12. Vehicle for Driving Training Car 2 (Pooled)

6. Volume Counter 2

7. Hat40

[C] List of Minimum Resources in the Traffic Information/GIS Laboratory (ND & HND) **Tools/Equipment NO.Required** S/N 1. Functional Desktop computer systems, accessories and software 40 2. Transport Planning Software such as TransCAD for Microscopic, PTV VISSIM, ARCGIS, AutoCAD, TransMoldeler for Microscopic, City Traffic Simulator for Micro Simulation 1 each 3. Computer Printers 2 4. Local Maps (Road Maps, Settlement Maps, Land Use Maps, Transport Facility Plan, Airport and Railway Terminals 1 each per student 5. A0 Plotter 1 **6.** A3 Printer 1 7. Photostatting Machine **8.** Mobile Traffic and Wireless Communication System **9.** GPS Vehicle Tracking Equipment **10.** Traffic Analyzer 1 11. Vehicle for Field Trip and Survey 1 (Pooled) [D] List of Minimum Resources in the Automobile Workshop (ND & HND) **Tools/Equipment** No Required 1. Digital Camera 5 2. Video Camera 3. Traffic Counter (Manual) 40 **4.** Digital Counter 5 **5.** Auto Counter (Metro Count Classifier) 1

8. Rail Coat 40	
9. Trimming Machine 1	
10. Steel Cabinets 1	
11. Traffic Signs and Signal Postal Varieties	
12. Traffic Cone 5	
13. Traffic Bar5	
14. Wireless Mobile Traffic Monitoring and DATA Collection System	1
El List of Minimum Resources in the Driving Range (ND & HND)	
E] List of Minimum Resources in the Driving Range (ND & HND) S/N Tools/Equipment No Required	
E] List of Minimum Resources in the Driving Range (ND & HND) S/N Tools/Equipment No Required 1. First-Aid Kit 1	
S/N Tools/Equipment No Required	
S/N Tools/Equipment No Required 1. First-Aid Kit 1	
S/N Tools/Equipment No Required 1. First-Aid Kit 1 2. Flare or Hazard Cones 1	
S/N Tools/Equipment No Required 1. First-Aid Kit 1 2. Flare or Hazard Cones 1 3. Spare Tire 1	
S/N Tools/Equipment No Required 1. First-Aid Kit 1 2. Flare or Hazard Cones 1 3. Spare Tire 1 4. Jack and Lug 1	
S/N Tools/Equipment No Required 1. First-Aid Kit 1 2. Flare or Hazard Cones 1 3. Spare Tire 1 4. Jack and Lug 1 5. Wrench 1	
S/N Tools/Equipment No Required 1. First-Aid Kit 1 2. Flare or Hazard Cones 1 3. Spare Tire 1 4. Jack and Lug 1 5. Wrench 1 6. Tire Pressure Gauge 1	

[F] List of Minimum Resources in the Exhibition Room (ND & HND)

S/N Tools/Equipment No Required

- 1. Local Maps (Road Maps, Settlement Maps, Land Use Maps, Transport Facility Plan, Airport and Railway Terminals per student
- 2. Steel Cabinets
- **3.** Models of Vehicle in all Roads 1 each model vehicle