

**NATIONAL BOARD FOR TECHNICAL EDUCATION  
KADUNA**

*HIGHER NATIONAL DIPLOMA*

*IN*

*ESTATE MANAGEMENT*

*CURRICULUM AND COURSE SPECIFICATIONS*

*2002*

PLOT B, BIDA ROAD, P.M.B. 2239 KADUNA, NIGERIA

# **GENERAL STUDIES COURSES**

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: USE OF ENGLISH III</b>		<b>COURSE CODE: GNS 301</b>	<b>CONTACT HOUR: 2 -0 -0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Know how to construct good sentences.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 – 3	<p><b>Know how to construct sentences</b></p> <p>1.1 Explain the different types of sentences.                      1.2 Explain the parts of a sentence.                      1.3 Explain the tenses.                      1.4 List the various tenses.                      1.5 Construct sentences to depicts correct use of tenses.                      1.6 Explain concords.                      1.7 Analyse types of concords.                      1.8 Apply the rules of concord in sentence construction.</p>	<p>Explain how to construct good sentence.</p>	<p>Textbooks, audio-visual aids.</p>
<b>General Objective 2.0: Know how to reason applying the basic Principles of Logic.</b>			
4 - 7	<p><b>Logic</b></p> <p>2.1 Explain the concept of logical thinking.                      2.2 Explain the basic principles of logic, vic, form validity and argument.                      2.3 Apply the principles of logic to distinguish fact from opinion.                      2.4 Differentiate between deductive and inductive reasoning.</p>	<p>Teach students how to reason and apply the basic principles of logic.</p>	<p>Textbooks</p>

	<p>2.5 Apply the principles of logic in deductive and inductive reasoning.</p> <p>2.6 Explain the premise as a step towards the conclusion.</p>		
<b>General Objective: 3.0 Know how to write different types of essays.</b>			
8– 11	<p><b>Essays</b></p> <p>3.1 Explain the different types of essays.</p> <p>3.2 Explain the characteristic of each type in 3.1 above.</p> <p>3.3 Explain the logical orders of presentation, e.g chronological, spatial, general-to specific, specific-to-general, alternation, inductive, etc.</p> <p>3.4 Write an expository essay.</p> <p>3.5 Write an argumentative essay.</p>	Give assignments on different types of essay writing.	Textbooks
<b>General Objective: 4.0 Appreciate Literature in English .</b>			
12 - 14	<p><b>Literature</b></p> <p>4.1 Explain the terms literature.</p> <p>4.2 List the genres of literature.</p> <p>4.3 Explain the terminology of poetry, e.g., rhyme, rhythm, enjambment, etc.</p> <p>4.4 Analyse a given poem. Answer an essay question on poetry.</p>	Propose relevant textbooks to read.	Textbooks

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: COMMUNICATION IN ENGLISH III</b>		<b>COURSE CODE: GNS 302</b>	<b>CONTACT HOUR: 2 – 0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the principles and practice of written communication.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 – 4	<b>Written Communication</b>  1.1 Explain the principles of letter writing. 1.2 Explain the components of a business letter. 1.3 Differentiate between a memo and a letter. 1.4 Prepare a portfolio of correspondence using different presentation techniques: appointments, promotions, dismissals, commendations, queries, condolences, congratulations.	Explain the principles and practice of written communication.	Textbooks, Audio-Visual Aids.
	<b>General Objective 2.0: Comprehended more difficult reading materials.</b>		
5 - 9	<b>Comprehension</b>  2.1 Read passages of expository and argumentative writing. 2.2 Trace logic in the passages in 2.1 above. 2.3 Differentiate between facts and opinions. 2.4 Answer questions on what is read.	Expose students to more difficult reading materials.	Textbooks, Audio-Visual Aids.

<b>General Objective 3.0: Know the procedure for writing project reports.</b>			
	<b>Projects Reports</b>		
10-14	<p>3.1 Explain the characteristics of a project report, viz, parts format, style.</p> <p>3.2 Select a suitable topic for a project report.</p> <p>3.3 Explain methods of gathering data from primary, secondary and tertiary sources.</p> <p>3.4 Use reference materials for gathering data.</p> <p>3.5 Use appropriate citation and documentation styles, e.g., APA, MLA</p> <p>3.6 Explain the procedure for writing a project report.</p> <p>3.7 Write an outline of a project report using appropriate numbering, ranking and phrasing.</p> <p>3.8 Write a project report.</p>	Teach the students the procedure of writing project reports	Textbooks, Audio-Visual Aids.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: INTRODUCTION TO PSYCHOLOGY</b>		<b>COURSE CODE: GNS 411</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Appreciate the basis of human behaviour.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<p align="center"><b>Scope of Psychology</b></p> <p>1.1 Define Psychology</p> <p>1.2 Outline or trace the development of psychology as efforts to discuss human behaviour.</p> <p>1.3 Discuss methods of studying human behaviour e.g. testing, experimentation, case-study, etc.</p> <p>1.4 Analyse the interplay between psychology and other social sciences (Sociology, Economics, etc.)</p> <p>1.5 Identify motives for behaviour (drives, needs, instincts, etc).</p>	Teach the student on the basis and development of human behaviour.	Textbooks, audio visuals aids.
	<b>General Objective 2.0: Know the development of behaviour.</b>		
	<b>Development of Behaviour</b>		
	<p>2.1 Define cognitive development.</p> <p>2.2 Analyse personality development.</p> <p>2.3 Define self-concept.</p>	Explain types of behaviours development.	Textbooks, audio visuals aids.

	<p>2.4 Explain socialization and its agents.</p> <p>2.5 Describe the states of development-infancy, adolescence and puberty.</p> <p>2.6 Describe perception.</p>		
<b>General Objective 3.0: Understand the principles of personality development.</b>			
4	<p><b>Principles of Personality Development</b></p> <p>3.1 State models of personality.</p> <p>3.2 Explain conflict model.</p> <p>3.3 Examine the consistency model.</p> <p>3.4 Describe behaviorism.</p>	Discuss the principles of personality development.	Textbooks, audio visuals aids.
<b>General Objective 4.0: Know the processes of learning.</b>			
5	<p><b>Processes of Learning</b></p> <p>4.1 Define learning.</p> <p>4.2 List types of learning.</p> <p>4.3 State methods of learning.</p>	State the processes of learning.	Textbooks, audio visuals aids.



	<b>General Objective: 5.0 Understand human memory.</b>		
6	<b>Human Memory</b> 5.1 Examine short-term memory. 5.2 Explain long-term memory. 5.3 Define forgetting.	Explain human memory and emotions.	Textbooks, audio visuals aids.
	<b>General Objective: 6.0 Understand human emotion.</b>		
7	<b>Human Emotions</b> 6.1 Define emotions. 6.2 Define types of emotions. 6.3 Explain casual factors of emotions. 6.4 Examine expressions of emotions.	Explain human emotions.	Textbooks, audio visuals aids.
	<b>General Objective: 7.0 Comprehend the processes of attitude formation and change.</b>		
8	<b>Processes of attitude formation and change</b> 7.1 Describe development of attitude. 7.2 Identify the components of attitude. 7.3 Analyse consistency theories of prejudice. 7.4 Explain change of attitudes.	Analyse the process attitude formation and change.	Textbooks, audio visuals aids.

<b>General Objective: 8.0 Know the psychological basis of management models in industries and organizations.</b>			
9	<b>Psychological basis of management models</b> 8.1 Explain worker motivation. 8.2 Describe negotiation and bargaining power. 8.3 Analyse organizational crisis intervention. 8.4 Examine building of team harmony and cohesion. 8.5 Explain psychological models of management (autocratic, demoncratic and laissez faire).	Describe the basis of industrial and organizational psychology.	Textbooks, audio visuals aids.
<b>General Objective: 9.0 Understand the psychology of other nationals.</b>			
10	<b>Psychology of other nationals</b> 9.1 Describe the psychology of Western Nations – USA, UK Germany, etc. 9.2 Examine the psychology of Eastern Bloc-USSR China, etc. 9.3 Describe the psychology of Third World countries – afro-Asian people. 9.4 Analyse the psychology of international negotiations.	Discuss the psychology of other nationals.	Textbooks, audio visuals aids.

<b>General Objective: 10.0 Know the psychological effects of health.</b>			
	<b>Psychological effects of health</b>		
11-12	10.1 Describe hypertension 10.2 Explain coronary heart diseases. 10.3 Describe defence mechanisms. 10.4 State anxiety neurosis. 10.5 Explain fatigue, frustration and interest 10.6 Examine psycho-social factors in health (poverty, hunger). 10.7 List coping, mechanisms (relaxation, therapy, behaviour modification).	State the psychological effects of health.	Textbooks, audio visuals aids.
<b>General Objective: 11.0 Know the methods of assessment in experimental psychology.</b>			
	<b>Method of assessment in experimental psychology</b>		
13-14	11.1 Explain reaction time. 11.2 Identify achievement motivation. 11.3 Explain interviewing. List psychological assessment tools (TAT, Rorschach test, Bio-feed back Tachistoscope).	Identify psychological assessment tools.	Textbooks, audio visuals aids.

# **BUILDING COURSES**

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE Building Construction III</b>		<b>COURSE CODE: BLD 203</b>	<b>CONTACT HOUR: 2 –0 –1</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the use of scaffolding.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1-2	1.1 Explain the principles of scaffolding.  1.2 State the use of scaffolding in walls, roof and suspended roof construction.  1.3 Explain the procedure for providing scaffolding for the various building types.  1.4 Explain the use of form work in floor construction.	<ul style="list-style-type: none"> <li>• Use question and answer to discuss.</li> <li>• Scaffoldings.</li> </ul>	<ul style="list-style-type: none"> <li>• Chalk board</li> </ul>
	<b>General Objective: 2.0 Know the various types of fenestration in buildings.</b>		
3 - 9	2.1 Explain the functional requirements of openings.  2.2 Explain the treatment of doors, windows and other openings in wall.  2.3 Explain the use of lintel and arches in fenestrations. 2.4 List the various type of doors.  2.5 List the main principles to be observed in the	<ul style="list-style-type: none"> <li>• Give various examples.</li> <li>• Discussions using question and answer.</li> <li>• Demonstrate with sketches.</li> <li>• Explain with examples.</li> <li>• Involve students in the discussion.</li> </ul>	<ul style="list-style-type: none"> <li>• Chalk board</li> </ul>

<p>3 - 9</p> <p>10</p>	<p>construction of doors and framing of joiners work in general.</p> <p>2.6 Describe with the aid of sketches the methods of constructing the different types of framed and flush doors.</p> <p>2.7 Describe the different types of door linings.</p> <p>2.8 Explain the difference between a door frame and a door lining.</p> <p>2.9 Describe the methods of fixing doorframes and linings to openings.</p> <p>2.10 List the various types of metal doors and the common Materials used in their construction.</p> <p>2.11 Describe with the aid of sketch a flush and a panel metal door.</p> <p>2.12 Define the term iron-mongery.</p> <p>2.13 List the method by which windows are classified.</p> <p>2.14 Describe with sketches the method of constructing the various types of windows.</p>	<p>Demonstrate with sketches.</p> <p>Ask students to do sketches of the various items.</p>	<ul style="list-style-type: none"> <li>• Chalk board</li> <li>• Drawing instruments</li> </ul>
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	2.15 Illustrate the various components of doors and windows.		
<b>General Objective: 3.0 Know the different types of finishes for floors, walls, and ceilings.</b>			
11-15	<p>3.1 State the functions of finishes on floors, walls, and ceilings. Illustrate the different types of floor finishes in relation to their functions, e.g terrazzo, grano, PVC etc in terms of internal and external functions.</p> <p>3.2 Illustrate the different types of wall finishes in relation to their functions in terms of internal and external functions.</p> <p>3.3 Illustrate the different types of ceiling finishes in relation to their functions in terms of internal and external functions.</p> <p>3.4 Explain the use of various types of paints for different surfaces in relation to their finishes.</p>	<ul style="list-style-type: none"> <li>• Give various examples during discussion.</li> <li>• Use questions and answer to discuss.</li> <li>• Use question and answer to discuss.</li> <li>• Discuss with examples.</li> </ul>	<ul style="list-style-type: none"> <li>• Chalk board</li> </ul>

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE Building Construction IV</b>		<b>COURSE CODE: BLD 204</b>	<b>CONTACT HOUR: 2 –0 –1</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the needs for External Works around the Building.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1-7	<p>1.1 Explain the essence of having external works around a Building.</p> <p>1.2 State the functions of external works.</p> <p>1.3 Explain the functions of fencing and hedges in building.</p> <p>1.4 State the conditions for providing roads, pathways and Parking lots to buildings.</p> <p>1.5 State the functions of sewage plants, e.g septic tank, Soakaways, manholes, inspection chambers, sewers etc.</p> <p>1.6 Explain with illustration how sewage plants above are constructed.</p>	<ul style="list-style-type: none"> <li>• Use question and answer</li> <li>• Demonstrate with sketches during discussion.</li> <li>• Lecture</li> <li>• Lecture with sketches.</li> </ul>	<ul style="list-style-type: none"> <li>• Chalk board</li> <li>• Studio and drawing equipment.</li> </ul>



	1.7 State the underlying principles in planning a good Drainage system.  1.8 Apply the principles of landscaping to a given site layout including all items of external works.		
<b>General Objective: 2.0 Understand the general administration of building.</b>			
8-11	2.1 Explain the responsibilities of the various parties involved in the building industry-client, architect, quantity surveyor, builders e.t.c.  2.2 Define contract, different types of contracts, signing and completion of contracts.  2.3 Describe the different types of tendering procedure.  2.4 Outline the methods of site layout and organization, reconstruct planning services on site, safety and security.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Use questions and answers</li> </ul>	<ul style="list-style-type: none"> <li>• Chalkboard</li> <li>• Building Textbooks</li> </ul>
<b>General Objective: 3.0 Understand various requirements as Regards Fire precautions and regulations as applied to Building.</b>			
12-15	3.1 List fire-fighting equipment in building.  3.2 Describe means of escape and route.  3.3 List fire precautions in building.	<ul style="list-style-type: none"> <li>• Give students examples of fire precautions.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fire Extinguishers/sand buckets etc</li> <li>▪ Chalk board</li> </ul>

	<p>3.4 Define fire resistance materials in building.</p> <p>3.5 Describe various burglar-proofing materials in building. Fix burglar-proofing materials.</p>	<ul style="list-style-type: none"><li>• Discuss with examples.</li><li>• Use question and answer to discuss.</li></ul>	
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**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: BUILDING ECONOMICS</b>		<b>COURSE CODE: EST 315</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Factor input in Building Industry.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 4	<b>Factor Input in Building Industry</b> 1.1 Explain the principles of building economic Structure, e.g. wages, income, labour, Employment, salaries etc. 1.2 Show their responses to price mechanisms 1.3 Outline the sources, manufacture, marketing of Various building materials.	i Explain principles of building Economics in the construction Industry.  ii. Give assignment to students to interpret drawing.	Relevant building economics Books, measurement books, Estimation books, journals, measuringTapes, drawing materials, Periodicals and calculators.
<b>General Objectives: 2.0 Understand the measurement from drawings.</b>			
5 - 7	<b>The Measurements from Drawings</b> 2.1 Interpret building drawings 2.2 Take measurements from the drawings 2.3 Outline the necessary measurements in building Work. - Site clearance - Foundation Concrete work - Doors and windows - Trusses - Roofing 2.4 Explain the methods of measuring each item in 2.3 above.	i Perform and Interpret measurement of building drawings.  ii. Give assignments	Measuring tapes. Calculators Drawing materials etc.

<b>General Objectives: 3.0 Understand the detailing or specification of Materials.</b>			
8-10	<b>The Detailing or Specification of Materials</b>  3.1 Compile items in bill of quantities 3.2 Produce a bill of quantities. 3.3 Quantity materials. 3.4 Estimate cost of 3.3 above.	i) Explain specification of Materials and estimation Techniques. ii) Give worked examples iii) Give assignment . iv) Undertake site visits	Calculators. Computers and measuring tapes.
<b>General Objectives: 4.0 Understand techniques of Estimating.</b>			
11-14	<b>Techniques of Estimating</b>  4.1 State different methods of estimating e.g. - Cubing - Squaring - Actual measurement etc. 4.2 Outline sources of information for estimating. 4.3 Differentiate between cost planning and cost Control. 4.4 Apply the techniques in building. 4.5 Undertake visits to building sites. 4.6 Prepare a bill of quantities for a simple domestic structure.	Show students types estimating methods.	Vehicles

# COMPUTER COURSES

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Computer Application to Real Estate</b>		<b>COURSE CODE: EST 418</b>	<b>CONTACT HOUR: 2 -0 -2</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Know the classifications of computer.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<p><b>Classification of Computer</b></p> <p>1.1 Classification by type of data processed – digital, analog &amp; hybrid computers.</p> <p>1.2 Classification by size – Mainframe, mini and micro computers.</p> <p>1.3 Classification by age technology – first, second, third, fourth and fifth – generation computers.</p> <p>1.4 Universal use of micro computers in real estate and other offices.</p>	<p>i) Explain the types of computer.</p> <p>ii) Practical application of computers to real estates and other offices.</p>	Computer, computer guide textbooks.
	<b>General Objective: 2.0 Know the components of a microcomputer.</b>		
3 - 4	<p><b>Components of a computer</b></p> <p>2.1 Hardwares</p> <p>2.2 Softwares</p> <p>2.3 Peripherals</p>	<ul style="list-style-type: none"> <li>• Explain the components of microcomputer.</li> </ul>	Computers and guide textbooks

	2.4 Functional classification of Hard-wares in input devices, CPU and Output devices.		
<b>General Objective: 3.0 Understand the meaning and types of softwares.</b>			
5 - 6	<b>Softwares</b> 3.1 Meaning of softwares. 3.2 Types of softwares – system/operating softwares and application softwares. 3.3 Application softwares – types-packages programs and customized programs packaged application programs or softwares of relevance in real estate.	i) Explain the meaning and types of softwares. ii) Practical application of computer softwares to real estates.	Computer Books/Computers
<b>General Objective: 4.0 Understand the use of packaged application softwares of relevance in real estate.</b>			
7 - 8	4.1 Advantages of packaged application programs. 4.2 Criteria for choosing a suitable application package. 4.3 Available application packaged softwares – word processing, data-base, Spreadsheet, Graphics (Autocad), Project Management etc. 4.4 The uses of these packages in real estate i.e. in Estate Agency, Property Management, Valuation, Investment Appraisal etc. 4.5 Practical application with the use of computer.	i) Give advantages of packaged application soft wares. ii) Practical application of packaged softwares to real estates	Computer Books/Computers

	<b>General Objective: 5.0 Know how to write and use customized application softwares written in basic.</b>		
9-10	<b>Writing and application of customized programs in basic programming language</b>  5.1 Revision of BASIC Programming Language  5.2 Algorith and flow charting with conventional symbols.  5.3 Use of subroutine subprograms.  5.4 Writing a complete BASIC program.  5.5 Writing basic program of general application for valuation, cash flow analysis e.g. calculation of PV factors net present value (NPV) profitability index etc.	i) Practical application BASIC programming language in real estates.	Computer Books/Computers



# ESTATE MANAGEMENT COURSES

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Valuation 1</b>		<b>COURSE CODE EST 311</b>	<b>CONTACT HOUR: 2 –1–0</b>
<b>Theoretical Content</b>			
<b>Week</b>	<b>General Objectives: 1.0 Understand the use of valuation tables and formulae.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Use of Valuation tables and formulae</b> 1.1 Explain Compound Interest. 1.2 Determine the theories of the construction of Valuation tables e.g. (i) Amount of ₦1 per annum (ii) Present Value (iii) Annual sinking fund etc. 1.3 Use of valuation tables. 1.4 Provide worked examples.	Explain valuation tables, formulae and rental values	Valuation textbooks, valuation table, calculators, measuring tapes etc.
	<b>General Objective: 2.0 Understand rental values.</b>		
	<b>Rental Values</b> 2.1 Define (a) rental value (b) outgoings (c) net income. 2.2 State their importance. 2.3 Relate them to Estate Management practice.	Provide worked examples to students	Valuation Books and Calculators, Tapes.
	<b>General Objective: 3.0 Understand methods of valuation.</b>		
7 - 8	<b>Methods Valuation</b> 3.1 Outline the methods of Valuation. 3.2 Treat the methods of valuation, i.e - Investment - Comparison - Profits - Cost method - Residual method	<ul style="list-style-type: none"> <li>• Enumerate methods of valuation.</li>   <li>• Give worked examples</li> </ul>	Valuation Books, Calculators.

	Provide worked examples. etc. 3.1 Contemporary methods e.g. Equated yield, Rational model, Equated yield, Real value/equated yield.	<ul style="list-style-type: none"> <li>• Give assignments.</li> </ul>	
<b>General Objectives: 4.0 Understand the different types of properties.</b>			
9-11	<b>Characteristics of Properties</b> 4.1 Outline types of properties 4.2 State the nature of each of them 4.3 Use the appropriate methods for valuing the different types of properties. 4.4 Provide worked examples.	i) Outline types of properties ii) Give worked examples iii) Give assignments.	Calculators Measuring tapes.
<b>General Objective: 5.0 Understand Surrender and Renewal of leases.</b>			
	<b>Leases</b> 5.1 Define leases. 5.2 Explain surrender and renewal of leases. 5.3 Explain the valuation of surrender and renewal of leases from both lessors' and lessees' points of view. 5.4 Apply them to Estate Management practice  <b>Field Work</b> Undertake valuation of some properties.	i) Explain surrender and/renewal of leases. ii) Visit selected properties.	Vehicles

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE Valuation II</b>		<b>COURSE CODE: EST 321</b>	<b>CONTACT HOUR: 2 –1 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Valuation of Assets and Liabilities for Purpose of Account and Balance sheet.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 4	<b>Assets and Liabilities:</b> 1.1 Explain the term “Assets” and Liabilities” with reference to a balance sheet. 1.2 Explain a going concern valuation. 1.3 Discuss how to scale down or scale up the ceiling figure with reference to reasonable rate of return. 1.4 Prepare a balance sheet.	Explain valuation of asset and liabilities for account and balance sheet purposes	Relevant valuation textbooks, journals, calculators, periodicals, book materials.
<b>General Objective: 2.0 Understand the Valuation of Shares in Property.</b>			
5 - 7	<b>Shares in Properties:</b> 2.1 Define shares in properties. 2.2 Explain different types of shares in property. 2.3 Prepare valuation of shares of a property.	Explain valuation of shares and goodwill in properties.	Calculators, Real Estate Books.
<b>General Objective: 3.0 Understand Valuation of Goodwill.</b>			
8 - 11	<b>Valuation of Goodwill:</b> 3.1 Define goodwill of a business. 3.2 Explain the different types of goodwill. 3.3 Explain the Valuation of different types of goodwill. 3.4 Evaluate/analyse each type	Ditto	Estate Books Valuation Books, Calculators.

	<b>General Objective: 4.0 Understand Simple Capital Project Appraisal.</b>		
12-14	<b>Capital Project Appraisal:</b> 4.1 Define Appraisal. 4.2 Discuss the different Appraisal methods: i) DCF (NPV, IRR method) etc ii) CBA and its application. 4.3 Discuss the uses of Appraisal. 4.4 Relate Appraisal to Valuation. 4.5 Provide worked examples. 4.6 Solve problems in selected appraisal topics. 4.7 Carry out a simple appraisal exercise of a proposed development project. 4.8 Produce a write-up.	i) Explain capital projects appraisal and relate it to valuation.  ii) Give worked examples.  iii) Give assignments	Books on Appraisal.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Advanced Valuation 1</b>		<b>COURSE CODE: EST 411</b>	<b>CONTACT HOUR: 2 -2 -0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the valuation of specialized properties.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Valuation of specialized properties</b> 1.1 Discuss the valuation of petrol stations, churches, cinemas, mosques, hospitals, sacred places, hotels, agricultural properties, NITEL, NEPA, Oil Installations etc. 1.2 Explain special features involved in carrying out such valuations. 1.3 Provide worked examples for each.	Explain valuation of specialized properties and discuss for various purposes.	Relevant valuation text books, Journals, periodicals, calculators, and measuring tapes.
	<b>General Objective: 2.0 Understand the valuation of specialized properties for various purposes.</b>		
4 - 7	<b>Valuation of specialized properties for various purposes</b> 2.1 Discuss the various purposes for which specialized properties can be valued. 2.2 Explain the valuation approach or method for each purpose. 2.3 Provide worked examples for each.	Ditto	Valuation Books
	<b>General Objective: 3.0 Understand the nature and effects of premium, surrenders and renewals etc. on value.</b>		
8 - 11	<b>Nature and effects of premium, surrenders and renewals.</b> 3.1 Define premium, surrenders and renewals etc. 3.2 State the circumstances in which they exist. 3.3 Explain the various methods of valuing varying incomes and deffered incomes.	i. Explain nature and effects of premium surrender and renewals as they apply to estate	Estate Books

	3.4 Provide worked examples.	<ul style="list-style-type: none"> <li>ii. Give worked examples.</li> <li>iii. Give assignments</li> </ul>	
<b>General Objectives: 4.0 Understand the modern and traditional or conventional methods of valuation.</b>			
12-14	<b>Modern and Traditional Methods of Valuation</b> 4.1 Outline both traditional and modern methods of valuation. 4.2 Discuss their advantages and disadvantages. 4.3 Provide worked examples of both.	<ul style="list-style-type: none"> <li>i. Appraise valuation.</li> <li>ii. Give worked examples.</li> <li>iii. Give students assignments</li> </ul>	Relevant valuation Textbooks, Journals, periodicals, calculators and measuring tapes.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Advance Valuation II</b>		<b>COURSE CODE: GNS 421</b>	<b>CONTACT HOUR: 2 –0–0</b>
<b>Theoretical Content</b>			
<b>Week</b>	<b>General Objective: 1.0 Understand the Operations of allowance for Future Capital Sums, Calculation of Premiums and Cost in Use.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>The Operation of Allowance for Future Capital Sums:</b> 1.1 State the significance of future capital sums. 1.2 Explain premiums and costs-in-use. 1.3 Provide worked examples involving the use of present value tables.	i) Explain operation of allowance for future capital sums, premiums, costs-in-use and statutory valuation.  ii) Give worked examples.  iii) Give assignments.	Relevant valuation textbooks, periodicals, journals, calculators.
	<b>General Objective: 2.0 Understand Statutory Valuation.</b>		
3 - 4	<b>Statutory Valuation:</b> 2.1 Discuss statutory valuations e.g. i) Compensation ii) Probate iii) Way-leaves iv) Rent controlled, etc. 2.2 Explain each of them. 2.3 Provide worked examples	Give students graded assignments.	Valuation Books. Valuation Tables.



<b>General Objective: 3.0 Understand Referencing, Identification and Assembly of Information required for Report and Valuation.</b>			
5 - 8	<b>Referencing, Identification and Assembly:</b> 3.1 Define referencing. 3.2 State the methods of data identification and assembly. 3.3 Undertake valuation surveys that may be required by the practitioner. 3.4 Relate how data collected may be applied in valuation, e.g. as comparables, etc.	i) Explain Referencing, identification and assembly and relate them with valuation.  ii) Give assignments.	Books and Calculators

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Development 1</b>		<b>COURSE CODE: EST 313</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand development and re-development.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>Development and Re-development</b> 1.1 Define development and re-development. 1.2 Distinguish between development and re-development. 1.3 Explain the legal, construction, economic, social and technical framework involved in development. 1.4 Trace the various stages of property development from inception to completion. 1.5 Prepare work schedule.	i. Explain types and uses of Estate development. ii. Give assignments to students.	Relevant Estate development textbooks, Journals, periodicals, calculators, Book materials, measuring tape.
	<b>General Objective: 2.0 Understand the uses of building and environmental surveys required for development.</b>		
3 - 4	<b>Uses of Building and Environmental Survey</b> 2.1 Explain the various types of surveys prior to development. 2.2 Examine soil test, load bearing test and other environmental surveys required before development. 2.3 Undertake an exercise in the State of operation	Give students graded assignments.	Relevant Estate development textbooks, Journals, periodicals, calculators, Book materials, measuring tape.
	<b>General Objective: 3.0 Understand Estate Development.</b>		
5 - 6	<b>Estate Development</b> 3.1 Explain the effect of Planning on Estate Development. Apply the knowledge of property development in the practice of estate development using a building under construction as a case study.	Visit a Building site.	Vehicles/Books/Notebooks

	<b>General Objective: 4.0 Know the effect of different site locations on development.</b>		
7 - 8	<b>Effects of different site locations on Development.</b>  4.1 Outline the various types of properties and the choice of site suitable for their development. 4.2 Determine the effects of the site development on the location of specific types of properties e.g. industrial, commercial, residential, etc. 4.3 Carry out a study on each type of development with appropriate write-up	i. Outline effects of different site locations on development  ii. Carry out a study on each type of development.  iii. Give assignments to students	Books, slides, cameras etc.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE Property Development II</b>		<b>COURSE CODE: EST 323</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the methods of development of types of properties.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<p><b>Methods of development of properties.</b></p> <p>1.1 Outline the various types of properties and their methods of development.</p> <p>1.2 Allocate the standard facilities to be provided in these properties.</p> <p>1.3 Explain how the facilities can be installed.</p> <p>Visit sites and understudy the installation processes.</p>	<ul style="list-style-type: none"> <li>Outline methods of development of properties and give students assignments.</li> </ul>	Relevant property Development textbooks, Journals, periodicals
	<b>General Objective: 2.0 Know the Housing Policies of the various governments in Nigeria.</b>		
3 - 4	<p><b>Housing Policies in Nigeria.</b></p> <p>2.1 Define Housing Policy and explain its aim.</p> <p>2.2 Interpret the Federal Government Housing Policies since 1960.</p> <p>2.3 Explain the housing policies in the various national development plans to date.</p> <p>2.4 Evaluate each of them.</p> <p>2.5 Evaluate the efforts made by the various state government agencies to solve the housing problems.</p> <p>2.6 Compare the functions of the Federal Housing Authority with those of the FMBN as agents of the housing delivery system.</p> <p>2.7 Determine the problems of housing finance in relation to housing provision.</p>	<ul style="list-style-type: none"> <li>Explain various Housing policies in Nigeria.</li> </ul>	<p>National Housing Policy of Nigeria.</p> <p>Hand Books on Housing Stock.</p> <p>Conference papers of NIESV, NITP, NSE etc.</p>

	2.8 Examine the National Housing Fund Policy and its problems. 2.9 Develop housing policies in your state of operation.		
<b>General Objective: 3.0 Understand Rural and Urban Housing in Nigeria.</b>			
5 - 7	<b>Rural and Urban Housing</b> 3.1 Explain the differences between rural housing and urban housing. 3.2 Explain the Investment in rural housing. 3.3 Evaluate the problems of rural housing provisions and investment. 3.4 Determine rural housing facilities and quantity. 3.5 Differentiate between the private and public housing in urban and rural Areas. 3.6 Explain the contribution of private housing to the nations housing stock. 3.7 Appraise the problems of private housing development. 3.8 Define cooperative housing. 3.9 Determine the various types of cooperative housing in Nigeria. 3.10 Appraise: (a) The problems affecting self help housing development in Nigeria. (b) The contribution of cooperative housing to the national housing stock. 3.11 Undertake visits to offices of Housing Development Corporations and relate their policies to selected housing Programmes. 3.12 Carry out case studies on rural or urban housing in your State of operation.	i) Explain differences between Rural and Urban Housing ii) Give worked examples iii) Give assignments. iv) Carry out case studies on Rural and Urban Housing.	Reference Papers of FMWH, FMB etc.

<b>General objective: 4.0 Understand Project Management.</b>			
8 - 9	<b>What is Project Management?</b> 4.1 Define project management 4.2 The objective of project management 4.3 Justification for project management 4.4 Causes of project Delay and Abandonment 4.5 The project manager – attributes, duties and responsibilities.	Explain in detail the objectives and the justification for project management.	Relevant textbooks, journals, periodicals on project management
<b>General Objective: 5.0 Understand the Development.</b>			
10-11	<b>Process</b> 5.1 Outline the stages in the Development Process  - Conception/briefing - Design stage - Tender stage - Sourcing of finance - Construction stage - Commissioning - Marketing/Letting	Undertake visits to development sites and give graded assignments to students.	Ditto with vehicles  FMB Handbook
<b>General Objective: 6.0 Understand the Tools for effective Project Management.</b>			
12-13	6.1 Outline the tools for effective project management.  - Critical Path Analysis - Bar charts - Gannth chart - P.E.R.T.	Provide students with worked examples.	Project Management Handbook Conference Papers.

	<b>General Objective: 7.0 Know the sources of finance for Real Estate Development.</b>		
14	7.1 Outline the sources of finance 7.2 Funding Arrangements	Explain sources of finance.	Textbooks, journals.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE Property Management I</b>		<b>COURSE CODE: EST 413</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Land Structure In Nigeria.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1	<p align="center"><b><u>Structure Of Land</u></b></p> <p>1.1 Trace the land structure in Nigeria.</p> <p>1.2 Explain the differences in the use and management of land.</p> <p>1.3 Determine the major factors that differentiate the land structures</p>	Explain land structures and major factors that differentiate them	Textbook, journals, periodicals, typical report on schedule of dilapidation.
	<b>General Objective: 2.0 Understand the various government land holding in Nigeria.</b>		
2	<p><b>Government land holding</b></p> <p>2.1 Distinguish between the rural and urban government land proprietors.</p> <p>2.2 Explain the functions of the various Federal and State government agencies dealing with land matters i.e. allocation, demarcation, development, management and taxation.</p> <p>2.3 Carry out specific study on Housing Corporations, Planning Authorities and quasi-government institutions.</p>	Explain differences in the various government land holdings.	Conference Papers



<b>General Objective: 3.0 Understand the impact of Proprietary Interests in Land as affected by development plans.</b>			
3	<b>Proprietary Interest In Land As Affected By Government Plans</b>		
	3.1 Describe government development plan and other land and fiscal policies that affect land.	Give students assignments on Rent Control Edict.	
	3.2 Explain the effect of the land use act on land allocation and development.		
	3.3 Apply other laws that affect property development and management – Rent Control Edict.		
	3.4 Determine how these laws are implemented		
<b>General Objective: 4.0 Know the major principles applied for effective management.</b>			
4 - 5	<b>Effective Estate Management</b>		
	4.1 Describe the various principles used in managing estates.	Illustrate with examples various principles that can be used to achieve effective estate management	Estate Management Textbooks.
	4.2 Explain the effect of planning control as tools for effective management.		
	4.3 Apply legal and economic principles to the management of estates.		
	4.4 Evaluate the importance of finance in property management.		
	4.5 Make financial proposals to Banks for effective property management.		
	4.6 State how Estate Surveyors generate revenue from properties using both legal and economic tools.		

	4.7 Carry out case studies of an estate in your state of operation to determine their effectiveness		
<b>General Objective: 5.0 Understand the organization of maintenance work.</b>			
6 - 7	5.1 Explain site organization, mode of organization and comparison.  5.2 Planned and unplanned maintenance.  5.3 Discuss types of contract, selection criteria, solvency, control of work and construction organization.	Describe the organization of maintenance work	Maintenance Guide Vehicles
<b>General Objective: 6.0 Understand the causes of common faults and remedies.</b>			
	6.1 Describe dampness, moisture, condensation, rain penetration decay and fungi attack.  6.2 Explain corrosion wear and tear, vibration, sound and thermal insulation.  6.3 Explain the mechanism of failure of materials, faults, causes and remedies e.g defects in foundation, concrete works, block work, door and windows etc.  6.4 Discuss the maintenance of water closets, sewage system, electrical installation and general environmental and estate services.	Identify and illustrate the causes of common faults in buildings and provides for the identified faults.	Building Construction Books

	<b>General Objective: 7.0 Understand how to prepare for maintenance inspection.</b>		
10-12	<p>7.1 Explain routine inspection maintenance schedule, report writing and specifications.</p> <p>7.2 Define schedule of dilapidation, decription, dimensions of work and costs.</p>	Prepare a typical schedule of dilapidation with the aid of worked examples.	Maintenance Guide
	<b>General Objectives: 8.0 Understand the preparation of Budget for Maintenance.</b>		
13-14	<p>8.1 Identify types of preparation of budget programming and progressing charts, components of expenditure, long term forecasting etc.</p> <p>8.2 Explain the procedure of specification, interim valuation techniques of estimating etc.</p>	Explain in details the procedure of preparing budgets for building maintenance.	Account Books

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Management II</b>		<b>COURSE CODE: EST 423</b>	<b>CONTACT HOUR: 2 –0–2</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Know more about Obsolescence in Estate.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Obsolescence in Estate:</b> 1.1 State the causes of obsolescence. 1.2 Explain the various stages of obsolescence. 1.3 Describe remedial measures aimed at arresting obsolescence. 1.4 Apply these measures in your State of operation.	i) Teach and give examples.  ii) Review case studies with students.	- Textbooks on Property Management, Journals periodicals.  - Research work
<b>General Objective: 2.0 Understand the need for estate renewal and its attendant management problems.</b>			
4 - 8	<b>Urban Renewal:</b> 2.1 Explain the effect of obsolescence on sub-urban sprawl. 2.2 State the means and mode of urban renewal – i.e. the resources available and efficient use of land. 2.3 Determine the problems involved in urban renewal. 2.4 Propose security measures of an estate using sketches.	i) Review urban Renewal with students.	- Textbooks on Property Management, Journals periodicals.  - Research work  - Use of vehicle
<b>General Objective: 3.0 Understand the basic principles of organising security on estates.</b>			
9-11	<b>Security in Estates:</b> 3.1 State the types of security arrangements needed on estate. 3.2 Outline the functions of the landlord and tenant in estate security organisation. 3.3 Evaluate the activities of government in providing	i) Discuss features of Security in Urban Estate.	Security Books  Conference Papers.

	<p>security on estates.</p> <p>3.4 Propose security measures of an estate using sketches.</p> <p><b>Field Trip</b></p> <p>3.5 Undertake visit to Housing Corporations and Housing Estates.</p> <p>3.6 Observe their roles and functions.</p> <p>3.7 Carry out case study in selected topics</p>	<p>ii) Ask students questions on security of Estate.</p>	<p>Books on Housing</p> <p>Conference Papers</p>
<b>General Objective: 4.0 Understand Meaning and Concept of Portfolio Management.</b>			
12-14	<p><b>Portfolio Management:</b></p> <p>4.1 Define Portfolio management.</p> <p>4.2 Explain the concept of diversification and portfolio theory.</p> <p>4.3 Explain objectives of portfolio management.</p> <p>4.4 Identify property portfolio measurement levels.</p> <p>4.5 Assess risk and return of a property portfolio.</p> <p>4.6 Carry out a working example of a simple property portfolio.</p> <p>4.7 Simple measures of performance e.g. IRR, FMRR, MWRR TWRR e.t.c.</p>	<ul style="list-style-type: none"> <li>- Give examples of portfolio with worked examples.</li> <li>- Take students to Housing Corporation and Housing Estates.</li> </ul>	<p>Vehicle and slides, camera</p>

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<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Rating and Taxation I</b>		<b>COURSE CODE: EST414</b>	<b>CONTACT HOUR: 2 –1–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the History of Rating.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>History of Rating:</b> 1.1 Trace the history of rating generally. 1.2 Examine the history of rating in Nigeria.	i) Lecture with examples.	Books in Rating, Taxation, Tax Guide from Local, State and Federal levels, etc.
<b>General Objective: 2.0 Understand the Principles of Assessment and Collection of Rates.</b>			
3 - 5	<b>Assessment and Collection of Rates:</b> 2.1 Outline the procedure of assessment of rates. 2.2 State the implication of default in rates. 2.3 Assess and collect rates.	i) Lecture with examples. ii) Display already developed examples and relief paper to students	Calculators
<b>General Objective: 3.0 Understand Exemptions and Reliefs.</b>			
6 - 7	<b>Exemptions and Reliefs:</b> 3.1 State the attributes of rateability. 3.2 Explain types of properties to be rated and those to be exempted. 3.3 Explain the machinery for assessing and collecting rates. 3.4 Prepare exemption and relief papers.	i) Give examples of how rates are collected	Tax Relief Forms  Internal Revenue Guide and calculators.

	<b>General Objective: 4.0 Understand the Types of Records Used by Rating Authorities.</b>		
8 - 9	<b>Records Used by Rating Authorities:</b> 4.1 Outline types of records used by rating authorities. 4.2 Explain the uses of each of the records used for assessments. 4.3 Explain the uses of each of the records used for collection.	i) Give examples of how records are used by rating authorities.	Records Books and calculators.
	<b>General Objective: 5.0 Understand the Principles of National Finance.</b>		
10-11	<b>National Finance:</b> 5.1 Describe the principles of national finance. 5.2 Explain how it is made and collected. 5.3 Prepare a sample of national finance.	i) Give examples of a National Finance Balance Sheets.	Calculator and balance sheets.
	<b>General Objective: 6.0 Understand the Relationship between Central and Local Government Finance.</b>		
12-14	<b>Central and Local Government Finance:</b> 6.1 Outline the relationship between Central and Local Government. 6.2 Explain the sources of their incomes. 6.3 State the uses of their respective incomes.  <b>Field Trip:</b> 6.4 Undertake visits to Rating and Taxation offices. 6.5 Participate in Rating/Valuation exercises or scheme.	i) Give examples on State and Local Government Finance (Income).	Vehicle Calculator and balance sheets.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Rating and Taxation II</b>		<b>COURSE CODE: EST 424</b>	<b>CONTACT HOUR: 2 –1 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Meaning of Valuation List.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Valuation List:</b> 1.1 Describe valuation list. 1.2 Explain how it is compiled. 1.3 State the importance of valuation list. 1.4 Demonstrate the use of valuation list in Estate Management practice	Show application of valuation lists.	- Valuation Textbook. - Calculator - Measuring Tape - Tribunal Reports. - Typical valuation list.
<b>General Objective: 2.0 Understand the Duties and Powers of Rating Authorities.</b>			
4 - 6	<b>Duties and Powers of Rating Authorities:</b> 2.1 State the duties and powers of Rating Authorities. 2.2 Explain how Rating Authorities perform their duties. 2.3 Cite relevant cases.	Cite relevant cases on the powers of rating authorities.	Land Law Books
<b>General Objective: 3.0 Understand the Functions of Local Valuation Courts and Rating Tribunals.</b>			
7 - 8	<b>Functions of Local Valuation Courts and Rating Tribunals:</b> 3.1 Outline the functions of: i) Local Valuation Courts ii) Rating Tribunals.  3.2 Explain why people go to such courts. 3.3 State the advantages. 3.4 Cite relevant cases.	Show how Local Valuation Courts and Rating Tribunals function.	Use decided Law cases



<b>General Objective: 4.0 Understand the Gross, Net and Rateable Values.</b>		
<b>Gross, Net ,and Rateable Values:</b> 4.1 Define the following terms: i) gross value ii) net annual value iii) rateable values. 4.2 Explain how the above values are calculated. 4.3 Calculate rates on the following premises i.e. houses, shops, offices, flats, factories, garages, etc. 4.4 Provide worked examples.	Calculate various rates on the items.	Calculators
<b>General Objective: 5.0 Understand Valuation Methods.</b>		
<b>Valuation Methods:</b> 5.1 Describe methods of valuation based on cost, profit and rents. 5.2 Provide worked examples in the relevant states.	i) Give students worked examples. ii) Give students assignments.	Calculators
<b>General Objective: 6.0 Understand Methods of Taxing Income from Property.</b>		
<b>Methods of Taxing Income from Property:</b> 6.1 Define Income Tax 6.2 Explain income tax. 6.3 Explain capital transfer tax. 6.4 Explain capital gain tax. 6.5 Describe local rates and other charges on land. 6.6 Provide worked examples. 6.7 Prepare income tax in your State of operation.	Explain methods of Taxing Income for Property	Internal Revenue Guide, calculators

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<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Real Estate Appraisal I</b>		<b>COURSE CODE: EST 415</b>	<b>CONTACT HOUR: 2 -2 -0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Concept of Appraisal.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>Concept of Appraisal:</b> 1.1 Define Appraisal. 1.2 State its relevance to real estate practice. 1.3 State the categories of appraisal. 1.4 Provide worked examples	i) Explain Concept, types, process, scope of appraisal.  ii) Give students worked examples and assignments.	Relevant Real Estate Appraisal textbooks, Journals, periodicals, calculators
<b>General Objective: 2.0 Understand the Various Types of Appraisal.</b>			
3 - 5	<b>The Various Types of Appraisal:</b> 2.1 Describe execution, decision, and follow-up appraisals. 2.2 Explain the application of each. 2.3 Provide worked examples.	Ditto	Real Estate Books Appraisal Books
<b>General Objective: 3.0 Understand the Process and Scope of Project Appraisal.</b>			
6 - 8	<b>The Process and Scope of Project Appraisal:</b> 3.1 State the process and scope of appraisal. 3.2 Describe the characteristics of a good appraisal. 3.3 Illustrate with worked examples.		Real Estate Textbooks Conference Papers on Appraisal

	<b>General Objective: 4.0 Know the Elements of feasibility and viability studies.</b>		
9-11	<b>Elements of Feasibility and Viability Studies:</b> 4.1 Define feasibility and viability studies. 4.2 Discuss the element of each of them. 4.3 Explain performance indicators. 4.4 Apply the indicators to worked examples	Discuss element of feasibility and viability studies and their roles and objectives	Real Estate Textbooks
	<b>General Objective: 5.0 Understand the role, objectives and tests for feasibility and viability studies.</b>		
12-14	<b>Feasibility and Viability Tests:</b> 5.1 State the objectives of feasibility and viability studies. 5.2 Explain the criteria for judging the feasibility of a project. 5.3 Illustrate with worked examples. 5.4 Undertake feasibility test of a given project.	i) Ditto ii) Undertake feasibility test of a given project	Use relevant Books

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Real Estate Appraisal II</b>		<b>COURSE CODE EST 425</b>	<b>CONTACT HOUR: 2 –2 –0</b>
<b>Theoretical Content</b>			
<b>Week</b>	<b>General Objective: 1.0 Know the details of line of Balance (LOB) system analysis and statistical analysis.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 4	<b>Details</b> 1.1 Define line Balance System Analysis and Statistical Analysis in projects appraisal. 1.2 Show projects analysis with the use of LOB, System Analysis and Statistical Methods. 1.3 Undertake worked or practical examples e.g construction of a bungalow from site clearing/assembly to completion.	Explain line of balance, system analysis and statistical analysis with practical examples.	Relevant real Estate appraisal textbooks, Journals, calculators, Book Materials.
<b>General Objective: 2.0 Understand the market Financial Analysis and Cash Flow techniques.</b>			
5 - 10	<b>Techniques</b> 2.1 Explain Cash flow techniques. 2.2 State the relevance of market data e.g current interest rate, rate of undated gilt-edged securities etc. 2.3 Provide worked examples of cash flow calculations.	Explain types of cash flow techniques with worked examples	Calculators
<b>General Objective: 3.0 Understand the concepts of Gestation Period, Pay Back theory and Sensitivity test and understanding of traditional methods of appraisal probability and decision tree.</b>			
11-14	<b>Concepts</b> 3.1 Define gestation period, pay back and sensitivity tests. 3.2 Explain their relevance in project appraisal. 3.3 Illustrate with worked examples. 3.4 Explain traditional methods of project Appraisal.e.g Profitability index, First year digit, Accounting rate of return etc.	Explain concepts of Gestation period, pay back theory and sensitivity test as they apply to real estate appraisal.	Relevant Books

	3.5 Explain the concept of probability and Decision tree. 3.6 Relate them to real Estate project appraisal.		
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**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Estate Office Administration</b>		<b>COURSE CODE: EST 316</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Meaning of Office Practice and Administration.</b>		
	Special Learning Objective	Teachers Activities	Resources
1 - 2	<b>Office Practice and Administration</b> 1.1 Define office administration. 1.2 State the purpose and importance of office administration. 1.3 Explain the procedures in offices. 1.4 Carry out office procedures.	i) Explain office administration, office management, service regulations in an office.  ii) Give students assignments.	A typical office, budgets and bank statements, textbooks, journals, periodicals, book materials, calculators, etc.
<b>General Objective: 2.0 Understand How to Manage an Office.</b>			
3 - 4	<b>Management of Office:</b> 2.1 State how to arrange work in offices. 2.2 Explain the need for proper office planning. 2.3 Layout an office. 2.4 Manage an office.		Books on Office Management
<b>General Objective: 3.0 Understand service regulations in offices.</b>			
5 - 7	<b>Service Regulation in Office:</b> 3.1 Outline the purposes of service regulations in offices. 3.2 Describe the kind of service regulations used in different offices. 3.3 Develop service regulations in your State of operation.	i) Explain Service Regulation to students	Books on Office Management

<b>General Objective: 4.0 Understand the Purpose of Budgets in Office.</b>			
8 - 9	<b>Budgeting:</b> 4.1 Define budgets. 4.2 Explain how they are used as instruments of control. 4.3 Prepare budgets.	i) Explain and prepare budgets.  ii) Give students assignments.	
<b>General Objective: 5.0 Understand Filing System in Office.</b>			
10-12	<b>Filing System:</b> 5.1 Define filing system. 5.2 Explain the various filing systems. 5.3 State the types of records kept in offices: e.g. i) Estate Terrier ii) Cash Book iii) Tenant Rental Ledger iv) Petty Cash Book v) Incoming and Outgoing Mail File. 5.4 Keep records.	i) Lecture and show students types of filing systems.	Accounting Books Use sample of Cash Books.
<b>General Objective: 6.0 Understand Banking Statement.</b>			
13-14	<b>Banking Statement:</b> 6.1 Define Banking Statements. 6.2 Explain the Bank Reconciliation Account. 6.3 Undertake Banking procedures. 6.4 Undertake visits to Estate Office and understudy their administrations. 6.5 Carry out case studies in related topics.	i) Explain banking statements.  ii) Visit Estate offices and understudy their administrations.  iii) Carry out case studies in banking operations.	Accounting Books Sample of Cash Books Vehicles.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: PROFESSIONAL PRACTICE</b>		<b>COURSE CODE: : EST 416</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the stand of Estate Surveying practice.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Estate Surveying Practice</b> 1.1 Explain Estate Management as a profession. 1.2 State the role of Estate Surveying profession in the economy. 1.3 Describe relationship of Estate Surveyors and Valuers amongst the other landed professions, e.g. Town Planning, Architecture, land surveying, Quantity Surveying, e.t.c. 1.4 Explain The Nigerian Institution Estate Surveyors and Values (NIEVS).and Estate Surveyors and Values’s Registration Board of Nigeria (ESVARBON) showing their differences and relation in organization and functions. 1.5 Interpret the codes of practice as approved by the Estate Surveyors and Valuers Registration Board of Nigeria. 1.6 State the requisite qualifications of Estate Surveyor as demanded by the .N.I.E.V.S. and the Registration Board.	i) Lecturer should see himself as a registered Estate Surveyor and Valuer. ii) State the features of NIEVS and ESVARBON. iii) Ask student the differences between each of them	Relevant documents by the profession and allied professional bodies
	<b>General Objective: 2.0 Understand the various functions of The Estate Surveyor and Valuer.</b>		
4 - 6	<b>Function of Estate Surveyors and Valuers</b> 1.1 Outline the various functions of Estate Surveyors and Valuers 1.2 Explain each of their functions. 1.3 Calculate the professional charges for each of the functions. 1.4 Determine the principles of the area of professional negligence as they relate to his responsibility.	And all the topics should be dealt with in details.	E.S.V.R.B.O.N Decree 24 of 1975



	<b>General Objective: 3.0 Understand the position of an Estate Surveyor and Valuer in Government Establishments.</b>		
7 - 10	<b>Position of Estate Surveyors and Valuers in Government Establishments.</b> 3.1 List the various public bodies engaging the services of Estate Surveyors and Valuers in Nigeria. 3.2 Explain the position of Estate Surveyors and Valuers in the government establishments.	Students should be guided with reference materials	Constitution of N.I.E.V.S.
	<b>General Objective: 4.0 Understand Professional Ethics.</b>		
11-12	<b>Professional Ethics</b> 4.1 Outline the professional ethics. 4.2 Determine sanctions against erring members. 4.3 Apply the professional Ethics in practice.	Ask the students the importance of Professional Ethics in practice.	Rules and regulation of Real Estate practice in Nigeria
	<b>General Objective: 5.0 Understand the Estate Surveyor and Valuer as an expert witness.</b>		
13-14	<b>Estate Surveyors and Valuers as expert witnesses.</b> 5.1 State the process of witnessing by the Estate Surveyor and Valuer in the court of law. 5.2 Describe the role of an Estate Surveyor as an arbitrator.	Ask the students the importance of Professional Ethics in practice.	Rule and Regulation of Real Estate Practice in Nigeria.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: FACILITIES MANAGEMENT</b>		<b>COURSE CODE: EST 420</b>	<b>CONTACT HOUR: 2 -1 -0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Principles in Facilities Management.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 4	<b>Principles of Facilities Management</b> 1.1 Define facilities management. 1.2 Sape of facilities management. 1.3 Facilities management and conventional property management. 1.4 The functions of the estate surveyor and valuer in facilities management.	The teacher should provide a comprehensive view of facilities management and emphasize that no single, conventional profession can claim expertise in the field.	Books on facilities management, magazines, periodicals and workshop papers.
	<b>General Objective: 2.0 Understand the reasons and benefits for facilities management.</b>		
5 - 6	<b>Reasons for facilities management</b> 2.1 Outline the reasons for facilities management. a) suitability of buildings for their purposes. b) interaction between buildings, people and processes. c) increasing costs of energy, security repairs and maintenance. d) users' awareness of costs of space and demand for more effective quality of performance. e) the growth of technology in business operations	Give students an overview of facilities Management.	Estate Management Books  Conference Papers.
7 - 8	2.2 State the benefits of facilities management: a) optimization of running costs of buildings b) maximization of returns c) better combination of efficiency and cost		

	d) more efficient management of space		
<b>General Objective: 3.0 Understand the major areas in facilities management.</b>			
9 - 13	3.1 Outline the major areas in facilities management.  a) strategic property management b) contract procedures and build as set management c) organisation people and presses d) practice environment.	Lecturer should discuss these areas in detail. Students should undertake visits to corporate organization where facility management is practised e.g National Stadium, National Arts theatre.	Vehicles, cameras.

# **LAW AND LAND ECONOMICS COURSES**

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Law 1</b>		<b>COURSE CODE: EST 312</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand Transactions in Land before and after the Land Use Act No. 6 of 1978.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<b>Transactions in Land:</b> 1.1 Discuss alienation, sales, assignments, pledges and mortgages. 1.2 State the processes involved in alienation, sales, assignments, pledges and mortgage (customary and statutory) in Nigerian laws. 1.3 Explain the implications of the Land Use Act of 1978 on land transactions.	Explain transactions in land, principles of statute/law, Nigerian Case Law, and property owners liability.	Relevant law textbooks, Journals, Periodicals, selected cases on land and cases on arbitrations.
<b>General Objective: 2.0 Understand the Principles of the Statute/ Law Dealing with Land.</b>			
4 - 7	<b>Statute Laws Dealing with Land:</b> 2.1 State the principal provisions of the Land Use Act 1978. 2.2 State the provisions of the Land Registration Acts, 1925 and 1971; the Land Charges Act, 1972; the Law of Property Acts 1975; Landlord and Tenant Act, 1954; Decree No. 38 of 1968 and Decree 33 of 1976; etc.	Explain the features of the various decrees, Acts and Laws etc.	Land use Act of 1978 and Act Published.  Conference Papers.
<b>General Objective: 3.0 Understand the Nigerian Case Law relating to Land.</b>			
8 -11	<b>Nigerian Case Law in Land:</b> 3.1 Examine the history of Nigerian Case Law relating to Land. 3.2 State recent developments in land cases. 3.3 Cite relevant cases	Explain the features of the various decrees, Acts and Laws etc.	Already decided land cases in Nigeria.

<b>General Objective: 4.0 Understand the Property Owners Liability to Third Party.</b>			
12-14	<b>Property Owners' Liability:</b>		
	4.1 Define owners' liability in respect of repairs, maintenance and nuisance.	i) Cite recent cases and give assignments.	Vehicles, Video tapes, Land Act.
	4.2 Explain the various methods of dealing with dilapidation during and after determination of the case study.	ii) Carry students to court and understudy their operation to Land Use Act.	Handbooks of FMB.  Already decided land law cases.
	4.3 Cite recent cases and give exercises to students on such cases.		

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Property Law II</b>		<b>COURSE CODE: : EST 322</b>	<b>CONTACT HOUR: 2 –0–0</b>
<b>Theoretical Content PLANNING LAW</b>			
<b>Week</b>	<b>General Objective: 1.0 Understand the historical development of Town and Regional Planning and Development Control.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
	<p><b>Historical Development of Town Planning</b></p> <p>1.1 Trace the historical background of Urban Planning in Nigeria.</p> <p>1.2 Describe town planning and development control. Explain the</p> <p>1.3 authorities normally connected with Urban planning and development control.</p> <p>1.4 Distinguish between “material development” and “development”.</p> <p>1.5 Examine the planning law provisions regarding development, and the process for obtaining planning permission.</p> <p>1.6 Describe the activities involved in development control and the statutory provisions</p>	<p>i) Give an indepth historical background of Urban Planning in Nigeria with respect to?</p>	<p>Relevant Textbooks in Planning Law.</p> <p>Relevant cases and BYE-Laws in Nigeria.</p>
	<b>General Objective: 2.0 Understand the machinery for planning and control.</b>		
	<p><b>Planning and Control</b></p> <p>2.1 Describe the activities of the Local Planning Authorities and the Ministries of Lands and Housing, Surveys, etc in relation to planning and control.</p> <p>2.2 State the penalties for contravening planning bye-laws and regulations regarding development control, zoning, etc.</p> <p>2.3 Cite cases in State of operation.</p>	<p>i) Planning control and relevant bye-laws.</p>	<p>Guide of FMWH on Planning Control and Laws.</p>

	<b>General Objective: 3.0 Understand the statutory provisions and by-laws relating to public health, sanitation, water and power supplies, and their effects</b>		
	<p><b>Bye-laws</b></p> <p>3.1 State the provisions of the relevant public health laws.</p> <p>3.2 State the major provisions of the Building Regulations.</p> <p>3.3 Interpret Bye-Laws in the state of operation</p> <p>3.4 State the powers of the Local Government to acquire compulsorily houses in dis-repairs and what the owner can do to mitigate the loss/escape acquisition under the relevant Public Health Law.</p> <p>2.3 3.5 Cite recent cases in relation to planning law.</p>	<p>i) Interpreting the Bye Laws and</p> <p>ii) Review selected cases in Planning Law.</p>	<p>Handbook of Public Health Laws, FMH and FMWH.</p> <p>Conference Papers.</p>



**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: COMPULSORY ACQUISITION AND COMPENSATION LAW</b>		<b>COURSE CODE: EST 422</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the statutory powers governing interest in land.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 5	<b>Statutory Power Governing Interests in Land</b> 1.1 Trace the history of compulsory acquisition and compensation in Nigeria. 1.2 State the steps to be taken in land acquisition, and the responsibilities of the land claimants. 1.3 Cite relevant cases.	i) Explain the statutory powers as its relate to Estate Management  ii) Cite relevant cases.	Relevant property law textbooks, journals, periodicals, selected cases on properties, arbitration e.t.c.
	<b>General Objective: 2.0 Understand the legal principles and statutory provisions governing right to compensation.</b>		
6 - 9	<b>Rights to Compensation</b> 2.1 State the principles involved in assessment of compensation. 2.2 Determine the heads of claims and compensation under the relevant law e.g. Land Use Act. 2.3 Cite decided cases.	i) Explain the principles and rights to compensation.  ii) Cite relevant cases.	Already decided cases on land law in Nigeria.

<b>General Objective: 3.0 Understand the general procedure in the exercise of compulsory powers.</b>			
10-14	<b>Exercise of compulsory powers</b> 3.1 Identify compulsory power e.g. compulsory acquisition powers, powers of Eminent Domain. 3.2 State the powers, rights and duties of acquiring authorities. 3.3 State the rights and responsibilities of the claimants. 3.4 Determine the limitation of rights and responsibilities of claimants. 3.5 Cite relevant cases. 3.6 Undertake visit to court and tribunals. 3.7 Prepare briefs for the lawyers.	i) Explain the procedure in the exercise of compulsory Powers  ii) Undertake visit to courts and tribunals	Vehicles, Already decided land law cases in Nigeria.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: ARBITRATIONS AND AWARD</b>		<b>COURSE CODE: EST 412</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Law of Arbitrations as an alternative to action at court.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	<p><b>Arbitrations</b></p> <p>1.1 Explain Arbitration and its functions.</p> <p>1.2 State the procedures for the conduct of arbitrations.</p> <p>1.3 The relationship between arbitration, valuation and certification.</p>	Explain arbitration functions and procedures.	Relevant property law textbooks, Journals, periodicals, selected Cases on properties artibration Etc.
	<b>General Objective: 2.0 Understand the basis of referencing, agreement and the provisions governing the publication of Awards.</b>		
4 - 6	<p><b>Referencing</b></p> <p>2.1 Describe the term, “referencing” and its relevance</p> <p>2.2 State the relevance of the President (or his Agent) of the Nigerian Institution of Estate Surveyors and Valuers in Arbitration procedures.</p> <p>2.3 Explain the procedures for referencing in line with the aims and objectives of setting up Arbitrations.</p> <p>2.4 State the procedures for publication.</p>	Explain referencing procedures and publication of awards.	NIESV Handbook

<b>General Objective: 3.0 Understand the Nigerian Law of Arbitrations</b>			
7 - 9	<b>Nigerian Arbitrations</b>  3.1 State the Nigerian law relating to awards of Arbitrations. 3.2 State the experiences from current relevant arbitrations in Nigeria. (Cite decided cases in arbitrations).	Explain Nigerian Law of Arbitration as it affects estate management	Land Law Book
<b>General Objectives: 4.0 Understand the Principal Provisions of the Relevant Rent Edicts.</b>			
10-12	<b>Rent Edicts</b>  4.1 Explain the various sections of Rent Edicts. 4.2 Provide the summary of the principal provisions 4.3 Describe the relationship between landlord and tenants.	i) Explain Rent Edicts ii) Cite decided Cases	Land Law Books
<b>General Objectives: 5.0 Understand the Nigerian Case Law on Landlord and Tenant.</b>			
	<b>Cases</b>  5.1 Cite decided cases on landlord and tenant. 5.2 Analyse such cases. 5.3 Apply such cases in your state of operation.	i) Cite decided cases on Landlord and tenant. ii) Undertake visit to court and tribunals	Vehicles, tapes, cameras etc.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Land Economics 1</b>		<b>COURSE CODE: EST 314</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand Factors Responsible for Supply of and Demand for Land Economic Use</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>Factors Responsible for Supply and Demand of Land</b> 1.1 State the factors that affect the supply of land for economic use. 1.2 State the factors that affect the demand of land for economic use. 1.3 Provide worked examples. 1.4 Determine the inter-relationships of factors of supply and demand for of land 1.5 Identify natural limits on the supply of land. 1.6 Analyse the effects of location on land utilization.	i) Explain factors of supply and demand, concept of rent, land reform.  ii) Give assignments	Relevant land economics textbooks, journals, , calculators.
<b>General Objective: 2.0 Understanding the concept of rent with respect to land</b>			
3 - 5	<b>Concept of rent to land:</b> 2.1 Explain the rent theories. 2.2 Relate economic rent to land value. 2.3 Explain the concept of the “land use capacity”. 2.4 Appraise its importance to estate management practice.	Ask students questions on Rent Theories, Land Value etc.	Urban Economic Books.
<b>General Objective: 3.0 Understanding land reform land reform</b>			
6 - 8	3.1 Explain the meaning of land tenure. 3.2 State the types of land reforms. 3.3 Analyse the implication of Land Use Act No.6 of 1978 on Land Development. 3.4 Develop suitable land reforms in your state of operation.	Ditto	Conference Papers.

	<b>General Objective: 4.0 Understand the property values and markets</b>		
9-11	<b>Property values and property markets:</b> 4.1 Define property values. 4.2 Explain property markets e.g. local, national and international property market. 4.3 Relate property value to property market. 4.4 Carry out case studies in area of operation.	i) Explain property value and property Markets.  ii) Give assignments  iii) Carry out case studies	Urban Land Economics Books
	<b>General objective: 5.0 Understand the impact of institutional factors on land use</b>		
12	<b>The impact of institutional factors on land use:</b> 5.1 Evaluate the institutional factors that affect land use. 5.2 Outline the importance of specific institutions on land use i.e. (a) Family system and education. (b) Government and political institution. (c) Law and legal system. (d) Custom and habit. (e) Religion institutions. 5.3 Apply these factors to the state of operation. 5.4 Carry out a case study of land Use in a given area.		Books on Land use.  Conference Papers.  Vehicle and already developed cases on land use.
	<b>General objective: 6.0 To understand the meaning of sustainable development and its impact on human settlement</b>		
	<b>Sustainable Development</b> 6.1 Define sustainable development. 6.2 Explain elements of sustainable development 6.3 Explain sustainable human settlement. 6.4 Explain the factors, which determine and influence sustainable human settlement. 6.5 Determine the effects of sustainable human development on sustainable human settlement.	Explain to student the features of sustainable development.	UNDP, World Bank, UN etc.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Land Economics II</b>		<b>COURSE CODE: EST 324</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand Location Theory in Relation to Land Development.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<b>Location Theories:</b> 1.1 Describe different location theories. 1.2 Explain factors responsible for site location. 1.3 State advantages and the disadvantages of certain locations. 1.4 Provide reasons why some properties are located in certain areas. 1.5 Propose a location using these factors	Give an indepth lecture of location theories.	- Land Economics Textbooks - Calculators - Measuring Tapes, etc
<b>General Objective: 2.0 Understand the Concept of Value.</b>			
3 - 4	<b>Concept of Value:</b> 2.1 Explain the concept of value. 2.2 Explain nature in relation to land. 2.3 State the value of various lands in relation to their uses. 2.4 Determine social values: i.e. Cost-Benefit Analysis and its application to government and private projects. 2.5 Provide worked examples.	i) Give the value of land in relation to their uses.  ii) Provide worked examples, for Cost-Benefit Analysis in projects.	Calculators
<b>General Objective: 3.0 Understand the impact of Government Uses of Land on Land Values and Development.</b>			
5 - 7	<b>Government Uses of Land, Values and Development:</b> 3.1 Outline the various land uses by government agencies. 3.2 Explain how land values are affected by such uses. 3.3 Carry out relevant case studies.	i) Review relevant cases in land, value and development.  ii) Give students supervised assignments	Already decided case studies

	<b>General Objective: 4.0 Understand Unification and Fragmentation of Interests in Land.</b>		
8 - 10	<b>Unification and Fragmentation of Interest in Land:</b> 4.1 Outline the unification and fragmentation of interests in land. 4.2 State the advantages and disadvantages of interest in large holdings. 4.3 Show the advantages and disadvantages of interest in fragmented holdings. 4.4 Outline the need for unification of interest in holdings. 4.5 Provide worked examples	Give students examples of how to calculate interest in land.	Calculators
	<b>General Objective: 5.0 Understand the Public Control of Land Use.</b>		
11-14	<b>Public Control of Land Use:</b> 5.1 Explain public control of Land Use (Police Power). 5.2 Determine why government controls the use of land. 5.3 Determine the impact of public control on Land Use and values e.g. i) Land Act Act 1978 ii) Town Planning Regulations, etc Land Regional. iii) Decree 88 of 1992 (Urban Planning Law)  5.4 Propose a public control of land use in your state of operation. 5.5 Carry out a case study of Land Use and Management of a given area.	Give students examples.	Use relevant Land Act and Laws in Nigeria



**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Estate Accounting</b>		<b>COURSE CODE: EST 325</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understanding the Recording of Rent Collection.</b>		
	Special Learning Objective	Teachers Activities	Resources
	<p align="center"><b>The recording for rent collection</b></p> <p>1.1 Explain the system of recording rents. 1.2 Prepare statements of accounts for rents collected in Property.</p>	<p>i) Explain system of recording rent collection</p>	<p>Relevant budgeting, Estate accounting textbooks, journals, periodicals, calculators etc.</p>
	<b>General Objective: 2.0 Understand the application of principles in recording of clients' statement of accounts in connection with property.</b>		
	<p><b>Principles in recording of sheets and statement of accounts in connection with property.</b></p> <p>2.1 Prepare all expenditure accounts. 2.2 Prepare the Receipts and Payments Account or Income and Expenditure Account or Profit and Loss Account for submission to the client. 2.3 Prepare balance sheets for the client account.</p>	<p>i) Lecture students the account principles of recording clients statements on properties.</p>	<p>Balance sheets. Calculators. Estate Accounting Book.</p>
	<b>General Objective: 3.0 Understand gearing and cash budgeting.</b>		
	<p><b>Gearing and cash budgeting.</b></p> <p>3.1 Define gearing and cash budgeting. 3.2 Explain high and low gearing business. 3.3 State the advantages and disadvantages of each. 3.4 Calculate gearing ratio and its needs in the business. 3.5 Explain cash budgeting and its needs in the business.</p>	<p>i) Explain gearing and cash budgeting with examples.  ii) Give assignment.</p>	<p>Calculator and Balance sheets.</p>

<b>General Objective: 4.0 Understand the valuation of business for balance sheet purposes.</b>		
<b>The valuation of business for balance sheet purposes</b> 4.1 Define valuation of business and good will. 4.2 Explain business and goodwill valuation. 4.3 State the principles involved in the valuation of business and goodwill. 4.4 Explain the various methods used in the valuation of business and goodwill. 4.5 Carry out the valuation of any business undertaking for bookkeeping purposes. 4.6 Determine the value of business goodwill.	i) Explain and prepare valuation of business for balance sheet purposes.  ii) Give assignments	Relevant budgeting, Estate Accounting textbooks, journals, periodicals and calculators.
<b>General objective: 5.0 Understand capital and current expenditure on fixed and current assets.</b>		
<b>Capital and Current Expenditure on Fixed and Current Assets</b> 5.1 Explain capital and revenue expenditure, fixed and current assets. 5.2 Differentiate between capital and revenue expenditure, fixed and current assets. 5.3 Explain which expenditure is incurred on which assets. 5.4 Prepare the various accounts of the two types of expenditure 5.5 Prepare balance sheet entries.	i) Lecture and differentiate between capital and current assets.	Calculators, Guide to Budgeting in Nigeria.

# MECHANICAL ENGINEERING COURSES

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Environmental Science and Estate Services</b>		<b>COURSE CODE: EST 317</b>	<b>CONTACT HOUR: 2 –0–1</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Environmental Issues</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<p><b>Environmental Issues</b></p> <p>1.1 Identify environmental issues e.g</p> <ul style="list-style-type: none"> <li>- Desertification</li> <li>- A forestation</li> <li>- Deforestation</li> <li>- Environmental Pollution</li> <li>- Global warming</li> <li>- Depletion of the Ozone layer</li> <li>- Coastal erosion</li> <li>- Oil spillage</li> <li>- Land Reclamation</li> <li>- Strip mining</li> </ul> <p>1.2 Explain each of these elements in relation to the Environment.</p> <p>1.3 Explain their effects on the environment</p> <p>Basic Elements of Environmental impact assessment.</p>	Identify types of environmental Issues and elements.	<p>Relevant textbooks on Environmental issues and water treatment, journals, periodicals, book materials.</p> <p>Conference papers of NITP, NIEVS etc.</p>
	<b>General Objective: 2.0 Understand the Sources of Pure and Impure Water.</b>		
	<p><b>Sources of Water</b></p> <p>2.1 Outline the types of water</p> <p>2.2 State the main sources of water e.g</p> <ul style="list-style-type: none"> <li>- Rain water</li> </ul>	Outline sources of water	Books on water supply and water treatment.

3 - 5	<ul style="list-style-type: none"> <li>- Ground water</li> <li>- Surface water</li> </ul> <p>2.3 Outline the uses of water</p> <p>2.4 Define Hydrological cycle of water</p> <p>2.5 State the physical, chemical, and biological water Pollutants.</p> <p>2.6 Carry out simple test of each pollutant.</p>		Books on water supply and water treatment.
<b>General Objective: 3.0 Understand the treatment of water.</b>			
6 - 7	<p><b>Treatment of Water</b></p> <p>3.1 State the problems and diseases caused by Polluted water.</p> <p>3.2 Explain the need for treatment of water.</p> <p>3.3 Explain the physical, chemical and biological Examination of water.</p> <p>3.4 Explain the treatment plant for surface and Underground water.</p> <p>3.5 Carry out simple water treatment in the state of Operation.</p>	Explain water treatment	Vehicle for a field trip to see a typical water treatment site in your area of operation.
<b>General Objectives: 4.0 Understand the water supply to houses.</b>			
8-10	<p><b>Water Supply</b></p> <p>4.1 Explain the layout of water mains</p> <p>4.2 Describe type of house connections</p> <p>4.3 Illustrate the housing connections diagrammatically.</p> <p>4.4 Undertake simple water supply in the state of Operation.</p>	<ul style="list-style-type: none"> <li>i) Give layout of water mains and explain connection Diagrammatically.</li> <li>ii) Give students assignments</li> <li>iii) Perform visit to water cooperation</li> </ul>	Vehicle, camera, Books on water supply.

<b>General Objectives: 5.0 Understand the needs and methods for waste disposal</b>			
	<b>Waste Disposal</b>		
11-13	<p>5.1 State laws relating to waste disposal</p> <p>5.2 State the composition and generation of wastes.</p> <p>5.3 Identify different types of wastes ; and examples: refuse; liquid wastes; solid wastes; industrial wastes.</p> <p>5.4 Appraise the various methods of waste disposal.</p> <p>5.5. Prepare a layout plan for water supply and waste disposal.</p>	<p>i) Identify types of wastes.</p> <p>ii) Undertake visit to water treatment plants.</p>	<p>World Bank Publications.</p> <p>UNDP</p> <p>Conference Papers.</p>

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Estate Services</b>		<b>COURSE CODE: EST 327</b>	<b>CONTACT HOUR: 2 –0–1</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Origin and Types of Roads.</b>		
	Special Learning Objective	Teachers Activities	Resources
1 - 2	<b>Origin and Types of Roads:</b> 1.1 Trace the historical development of highways. 1.2 State the regulations for roads in Nigeria. 1.3 Explain the factors to consider while preparing feasibility reports on roads. 1.4 Explain traffic survey. 1.5 Sketch the classification of roads. 1.6 Categorise them according to use.	Give historical developments of roads, modes of survey and sketches of classification of roads.	- Textbooks in Building Services, NITEL Handbooks, Nigeria Year Book. - Nigeria High Way Code - Telephone Directory - NEPA Handbook
	<b>General Objective: 2.0 Understand the Naming and Maintenance of Roads/Streets.</b>		
3 - 4	<b>Naming and Maintenance of Road/Streets:</b> 2.1 Explain procedure of street naming and house numbering. 2.2 State reasons for road maintenance. 2.3 Explain ways of maintaining a road. 2.4 Identify agencies responsible for maintenance of Estate Roads. 2.5 Undertake the naming and maintenance of Roads/Streets in your state of operation.	Explain the features naming and maintenance of Roads/Streets.	- FMWH Street/High Codes. - Handbook of the Federal Republic of Nigeria.

	<b>General Objective: 3.0 Understand Drainage Within an Estate.</b>		
5 - 6	<b>Drainage:</b> 3.1 Explain the meaning of drainage. 3.2 Outline how to achieve good drainage within an estate. 3.3 Explain how to lay drainage pipes in relation to the direction, the size and slope.	i) Teach procedures of naming streets and house numbering and maintaining a road.  ii) Give students graded assignments.	Relevant Textbooks.
	<b>General Objective: 4.0 Understand the Set-up of Telephone Network.</b>		
7 - 9	<b>Telephone Network:</b> 4.1 Describe the meaning of Telecommunication. 4.2 State the needs for Telecommunication and Telephone services within an estate. 4.3 Identify the authorities responsible for Tele-communication in Nigeria. 4.4 Propose a Telephone Network System in your State of operation. 4.5 Explain subscribers telephone instrument. 4.6 State Local Telephone exchange. 4.7 Explain the Telephone Local Line Network. 4.8 Explain Trunk Exchange. 4.9 Describe the Trunk Network. 4.10 Prepare a layout plan for telephone exchange	Teach the set-up and functions of Telecommunication in Nigeria. - Subscriber, telephone exchange. - Local Lines Net Work. - Trunk exchange and network.  Assign students to prepare a simple layout plan for telephone exchange.	- Vehicle - NITEL Directory - Federal Ministry of Communication Handbook. - Drawing Board/Drawing Materials.
	<b>General Objective: 5.0 Understand Power Network.</b>		
10-12	<b>Power Network:</b> 5.1 Identify the authorities responsible for generation of power. 5.2 Identify consumers of electricity. 5.3 Explain power supply and distribution.	- Teach the set-up and functions of NEPA in relations with power supply and distribution.	- NITEL Directory - FMC Hand Book



	<p>5.4 Prepare a layout plan for power network system in your State of operation.</p> <p><b>Field Work</b></p> <p>5.5 Undertake visits to various Utility Boards to expose them in their operation.</p> <p>5.6 Carry out their operation under strict supervision.</p>	<ul style="list-style-type: none"> <li>- Assign students to prepare a graded plan power network.</li> <li>- Visit Utility Board and NEPA with students.</li> </ul>	<ul style="list-style-type: none"> <li>- Drawing Board with Drawing Materials and Colours.</li> </ul>
<b>General Objective: 6.0 Understand Building Installations.</b>			
13-14	<p><b>Building Installations:</b></p> <p>6.1 Identify various building installations. E.g.</p> <ul style="list-style-type: none"> <li>- Lift</li> <li>- Air-conditioners</li> <li>- Generators</li> <li>- Water heater, etc.</li> </ul> <p>6.2 Understand the installation of each of the above.</p> <p>6.3 Understand maintenance of each of these installations.</p> <p>6.4 Undertake visit to a property to identify these installations.</p> <p>6.5 Write a Report on the installation listed in 6.1. above.</p>	<ul style="list-style-type: none"> <li>- Give an overview of various Building installations in relation to LIFT, AIR CONDITIONERS, GENERATORS, WATER HEATER, ETC.</li> <li>- Students should be made to visit building installations and write reports.</li> </ul>	<ul style="list-style-type: none"> <li>- Vehicle</li> <li>- Copper pipes</li> <li>- Cables, crews, adaptors, Electrical socket etc.</li> </ul>

# **URBAN AND REGIONAL PLANNING COURSES**

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Urban Planning Principles &amp; Techniques II</b>		<b>COURSE CODE: URP 128</b>	<b>CONTACT HOUR: 2 HRS</b>
Course Specification Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the planning of New Towns</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1-2	<p><b>New Towns</b></p> <p>1.1 Explain the phenomena of urban sprawls and sub-urban development.</p> <p>1.2 Explain the basic issues in the location of new towns.</p> <p>1.3 Distinguish between satellite towns and new towns.</p> <p>1.4 State the physical planning and design principles in the development of new towns.</p> <p>1.5 Distinguish between towns, cities, conurbations and metropolis.</p> <p>1.6 Prepare a new plan in your area of operation.</p>	<p>i) Explain concept of planning of new towns.</p> <p>ii) Prepare town plan of notable area.</p> <p>iii) Give assignments.</p>	<p>Relevant textbooks, journals, periodicals, calculators vehicles etc.</p> <p>Conference papers.</p> <p>Abuja Master Plan.</p> <p>Drawing Board and Drawing Materials.</p>
	<b>General Objective: 2.0 Know some basic concept of Regional Planning.</b>		
3-4	<p><b>Concept of Regional Planning</b></p> <p>2.1 Describe the concept of a region.</p> <p>2.2 Define regional planning.</p> <p>2.3 Undertake the delineation of region, and different types of regions.</p> <p>2.4 Explain the inter-relationship of national, regional and local plans.</p>	<p>i) Explain basic concept of regional planning.</p> <p>ii) Give assignments.</p>	<p>Urban Planning Books</p>

<b>General Objective: 3.0 Know some basic principles and techniques of rural planning</b>			
<b>Techniques of Rural Planning</b>			
4-5	<p>3.1 Define 'rural' area and 'rural planning' and 'rural intergration'.</p> <p>3.2 Identify the problems of rural-urban migration.</p> <p>3.3 Explain the principles of village planning.</p> <p>3.4 Outline Nigerian examples of village planning.</p>	<p>i) Explain the principles and technologies of rural planning.</p> <p>ii) Give students assignments.</p>	<p>UNDP, World Bank Publication</p> <p>Textbooks, Conference Papers.</p>
<b>General Objective: 4.0 Understand the strategies for urbanization</b>			
<b>Strategies for Urbanisation</b>			
6-7	<p>4.1 Define 'urbanisation'.</p> <p>4.2 Relate two strategies of concentration and dispersal.</p> <p>4.3 Appreciate the need for a clear strategy for any settlement.</p>	<p>i) Explain urbanization strategies.</p> <p>ii) Give students assignments</p>	<p>UNDP, World Bank Publication</p> <p>NITP Conference Papers</p>
<b>General Objective: 5.0 Understand the techniques of plan implementation</b>			
<b>Techniques of Plan Implementation</b>			
8-9	<p>5.1 Explain the resources for plan implementation.</p> <p>5.2 Explain the effect of resource availability and capacity on Implementation.</p> <p>5.3 Explain the stimulation of plan implementation.</p> <p>5.4 Identify the institution for planning implementation.</p> <p>5.5 Outline the factors impeding the effective implementation of plans.</p>	<p>i) Explain the techniques of plan implementation.</p> <p>ii) Give students assignments.</p>	<p>Town Planning Books</p> <p>Check already completed Master Plans by Consultants.</p>

<b>General Objective: 6.0: Know the institutional Frame-work of Planning in Nigeria</b>		
<b>Institutional Frame-work of Planning in Nigeria</b> 6.1 Outline the planning administration in Nigeria at the Federal, State and Local levels. 6.2 Explain the functionaries in physical planning – the politician, the physical planner, related professionals, administrator, lawyers, and other stake holders. 6.3 Appraise each function in relation to physical planning process.	i) Explain the institutional frame-work of planning in Nigeria.  ii) Explain and appraise functionaries in physical planning.  iii) Give students assignment	NITP Handbook
<b>General Objective: 7.0 Understand the process of Development Control</b>		
<b>Development Control</b> 7.1 Explain the need for development control. 7.2 Outline the strategies of development control. 7.3 Describe the mechanics of development control. 7.4 Identify the problems experienced in enforcing development control. 7.5 Undertake a development control within your state of operation. 7.6 Carry out a simple exercise in selected topics under supervision.	i) Explain process of development control.  ii) Prepare a development control of a given area of operation.  iii) Give students assignment	FMWH Guides on Development Control

# **PROJECTS**

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Professional Report Writing</b>		<b>COURSE CODE: EST 417</b>	<b>CONTACT HOUR: 2 –0–0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the techniques of Technical Report.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 – 4	<p><b>Techniques of Technical Report</b></p> <p>1.1 Explain the meaning of Technical report.</p> <p>1.2 Describe the nature of various technical reports e.g Valuation Report, Feasibility Report.</p> <p>1.3 Outline the essentials of a good technical Report.</p>	Teach and give students detailed approach of professional report writing including methods and techniques.	<ul style="list-style-type: none"> <li>- Books on Estate Management Report Writing and Proposals.</li> <li>- -Research Reports.</li> <li>- -Sample Professional Valuation</li> <li>- -Sample feasibility reports</li> </ul>
	<b>General Objective: 2.0 Understand Report Writing for Various Purposes.</b>		
5 – 8	<p><b>The Purposes of Report Writing</b></p> <p>2.1 Distinguish between technical reports and research reports.</p> <p>2.2 Explain the different types of technical reports.</p>	Teach the application of report writing to estate management practice.	<ul style="list-style-type: none"> <li>- Books on Estate Management Report Writing and Proposals.</li> <li>- -Research Reports.</li> <li>- -Sample Professional Valuation</li> <li>-Sample feasibility reports</li> </ul>

<b>General Objective: 3.0 Understand the information required in programme report writing.</b>			
	<b>Information Required in Professional Report Writing</b>		
9 - 12	<p>3.1 State the various types of information that would be required in reports.</p> <p>3.2 Explain terms of reference in reports.</p> <p>3.3 Explain the difference between facts and opinion.</p> <p>3.4 Provide information for professional report writing.</p>	Students should be given graded assignments.	<ul style="list-style-type: none"> <li>- Books on Estate Management Report Writing and Proposals.</li> <li>- -Research Reports.</li> <li>- -Sample Professional Valuation</li> <li>- -Sample feasibility reports</li> </ul>
<b>General Objectives: 4.0 Understand standard Method in writing professional Report</b>			
	<b>Methods of Report Writing</b>		
13-15	<p>4.1 State the standard methods in professional report writing.</p> <p>4.2 Outline the procedure in writing a report.</p> <p>4.3 Prepare a professional report on selected technical matters.</p>	Students should be asked to prepare reports in a given area.	<ul style="list-style-type: none"> <li>- Computer, materials</li> <li>- Photocopying papers</li> <li>- Binding Materials</li> </ul>



**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: RESEARCH METHODOLOGY</b>		<b>COURSE CODE: EST 326</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the Nature and Meaning of Research.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 2	<p align="center"><b>Nature and meaning of research</b></p> <p>1.1 Define research.</p> <p>1.2 Explain forms of research</p> <ul style="list-style-type: none"> <li>- Basic research</li> <li>- Applied research</li> <li>- Action research etc.</li> </ul> <p>1.3 Explain types of research</p> <ul style="list-style-type: none"> <li>- Historical research</li> <li>- Descriptive research</li> <li>- Experimental research etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain research, forms and types of research.</li> </ul>	Textbooks on research methods.
	<b>General Objective 2.0: Understand how to choose research topic and describe research problem.</b>		
3 - 4	<p><b>How to choose research topic and describe research problem</b></p> <p>2.1 State how to choose research topic.</p> <p>2.2 Define research problem.</p> <p>2.3 Explain the forms of stating research problems</p> <p>2.4 Explain how a research problem may be distilled.</p> <ul style="list-style-type: none"> <li>- Background to the problem</li> <li>- Statement of problem</li> <li>- Study aim objectives</li> <li>- Significance of study</li> </ul>	<ul style="list-style-type: none"> <li>• Give the steps of how to choose research topic, state and distilled research problem.</li> <li>• Give assignments.</li> </ul>	Use of the Library.  Books on Project/Research Writing.

	- Definition of terms etc. 2.5 Undertake a working example of a given subject identify the research topic and problem.		
<b>General Objective: 3.0: Understand Literature Review.</b>			
5 - 6	3.1 Explain the meaning of literature review. 3.2 State types and sources of literature. 3.3 Give reasons why literature review is important. 3.4 State the procedure for literature review.	<ul style="list-style-type: none"> <li>• Explain literature review.</li> <li>• Define conceptual and theoretical framework.</li> </ul>	Ditto and visit library.
<b>General Objective: 4.0: Understand the meaning and procedure for testing hypothesis.</b>			
7 - 8	4.1 Define hypothesis. 4.2 Explain the types of hypotheses. 4.3 Describe the procedure for testing hypothesis. 4.4 Explain the techniques for testing hypothesis. 4.5 Understand a working example of formulating and testing hypothesis for a given research problem.	<ul style="list-style-type: none"> <li>• Explain hypothesis, types, procedures and techniques of testing hypothesis.</li> <li>• Formulate hypothesis and test them.</li> </ul>	Research textbooks statistical tables for testing hypothesis.
<b>General Objective: 5.0 Understand research population sample and sampling.</b>			
9 - 10	<b>Population, Sample And Sampling</b> 5.1 Define population, sample and sampling. 5.2 State the procedure for sampling design. 5.3 Identify methods of sampling. - Simple random sampling - Cluster sampling - Multi-Stage sampling etc. 5.4 Explain methods of sampling. 5.5 Apply the techniques of sampling to select sample from choosing population.	<ul style="list-style-type: none"> <li>• Explain sampling design, procedure and methods of selecting sample.</li> <li>• Give assignment on selection of a sample from a chosen population.</li> </ul>	Research textbooks.
<b>General Objective: 6.0 Understand methods of data collection and analysis.</b>			
<b>Method of data collection and analysis</b>			

11-12	<p>6.1 State types of data</p> <ul style="list-style-type: none"> <li>- Primary</li> <li>- Secondary</li> </ul> <p>6.2 Define research instrument.</p> <p>6.3 Explain the types of research instrument.</p> <ul style="list-style-type: none"> <li>- Questionnaire</li> <li>- Interview</li> <li>- Observation etc.</li> </ul> <p>6.4 Explain how each of them be formulated.</p> <p>6.5 State the different methods of organizing and analyzing data.</p>	<ul style="list-style-type: none"> <li>• Explain methods of data collection, organization and analysis.</li> </ul>	Research Publications
<b>General Objective: 7.0 Understand how to present research report.</b>			
13-14	<p>7.1 Define research report.</p> <p>7.2 Explain the research process.</p> <p>7.3 State the format of a research report.</p> <p>7.4 State types of referencing systems.</p> <p>7.5 Demonstrate with examples the types of referencing systems.</p>	<ul style="list-style-type: none"> <li>• Explain the different parts of research report.</li> <li>• Explain and diagrammatically represent the research process.</li> </ul>	Research textbooks research reports.

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Project Dissertation</b>		<b>COURSE CODE: EST 426</b>	<b>CONTACT HOUR: 1 –O –4</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the purpose of writing Project Dissertation.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 - 3	1.1 Explain the meaning of project dissertation. 1.2 Discuss the need for project dissertation.	<ul style="list-style-type: none"> <li>Explain the purposes of writing project dissertation.</li> </ul>	Research Textbooks
	<b>General Objective: 2.0 Choosing Dissertation Topic.</b>		
4 - 7	2.1 Identify typical problem in practice. 2.2 Explain the significance of solution to the identified problem. 2.3 Outline the recommendations and deductions. 2.4 Choose the topic.	<ul style="list-style-type: none"> <li>Differentiate between primary data and secondary data state kinds of analysis for primary data.</li> </ul>	Conference Papers
	<b>General Objective: 3.0 Searching for relevant and detailed data.</b>		
8 - 12	3.1 State how to collect primary and secondary data. 3.2 Explain the use of primary and secondary data. 3.3 State the kind of analysis which such data can be put. 3.4 Analysis data collected. 3.5 Summarise the findings and make necessary recommendations.	<ul style="list-style-type: none"> <li>Differentiate between primary data and secondary data.</li> <li>State kinds of analysis for primary data.</li> </ul>	
	<b>General Objective: 4.0 Writing dissertation.</b>		
13-14	4.1 Arrange the idea in standard sequence. 4.2 Produce the completed work neatly.	<ul style="list-style-type: none"> <li>Supervise the students work closely to achieve the objectives.</li> </ul>	

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: Plant and Machinery Valuation</b>		<b>COURSE CODE: EST 427</b>	<b>CONTACT HOUR: 2 –1 –0</b>
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Understand the general background of Plant and Machinery Valuation.</b>		
	<b>Special Learning Objective</b>	<b>Teachers Activities</b>	<b>Resources</b>
1 – 3	<p><b>General Background of Plant and Machinery Valuation</b></p> <p>1.1 Explain Nigerian industrial History and Economics.</p> <p>1.2 Show appreciation of the impact Nigerian Economic Policies on plant and machinery values e.g SAP, Privatisation and Commercialisation of government assets etc.</p> <p>1.3 Describe materials and processes involved in manufacturing organization e.g Textile Mills, Canning industrial, plastic, industrial e.t.c.</p>	<p>i) Discuss Nigerian industrial history and illustrate the process of valuing company’s assets.</p> <p>ii) Visit a manufacturing organization to appreciate the valuation.</p>	Textbooks, journals.
	<b>General Objective: 2.0 Understand the relevant concepts in plant machinery valuation.</b>		
4 - 5	<p>2.1 Define plant and machinery as:</p> <p>a) estate in land</p> <p>b) chattels.</p> <p>2.2 Explain the meanings of the teams – fair value, net book value, useful life, recoverable amount, historical cost, concept of depreciation etc.</p>	<p>i) Define relevant terms in plant and machinery valuations.</p> <p>ii) Give students simple assignment on plant machinery valuation.</p>	Textbooks, Journals

<b>General Objective: 3.0 Understand the contemporary issues relation to plant and machinery.</b>			
6 - 8	<p>3.1 Examine the application of the standards for assets valuation practice (SAVP) – RICS (“The Red Bond”) Nigerian Institution of Estate Surveyors and Values. (NIESV) guidance notes on property valuations, and insurance guidelines on plant and machinery valuation in Nigeria.</p> <p>3.2 Examine the role of Estate Surveyors and Valuers, Engineers and Accountants in Plant and Machinery Valuation.</p> <p>3.3 Examine the Estate Surveyors and Valuers Registration Board of Nigeria (ESVRBON) Decree No. 24 of 1975, Council of Registered Engineers in Nigeria (COREN) Decree 55 of 1970, the Institute of Chartered Accountant of Nigeria Act 15 of 1965, Nigeria Companies and Allied Matters Law (as amended up-to-date) etc.</p>	<p>i) Examine the application of standards for assets valuation practice.</p>	Textbooks, Journals
<b>General Objective: 4.0 Know the various types of plant and machinery that can be valued.</b>			
9 - 11	<p>4.1 Explain the major categories of plant, machinery and equipment.</p> <p>i) Specialised Plant and machinery which includes oil refineries, chemical works, power stations, mineral undertakings, brewery etc.</p> <p>ii) Non-specialised plant and machinery which includes generators, mobile cranes, fork lift, maintenance equipment etc.</p>	List plant and machinery that can be valued.	Calculators Computer and Valuation Tables

<b>General Objective: 5.0 Understand the purposes, bases and methods of valuation of plant and machinery.</b>			
<p>5.1 Explain the purposes of plant and machinery valuation which includes open market valuation, insurance, sales and purchases, take over and merger, privatization and commercialization, rating and taxation, mortgage, balance sheet, compensation etc.</p> <p>5.2 Explain factors affecting the value of plant, machinery and equipment.</p> <p>b) Age and Condition c) Model of the machine d) Nature of the plant and machinery e) Location f) Frequent removal of machines etc.</p> <p>5.3 Discuss the basis of valuation of plant and machinery.</p> <p>i) Open market value ii) Existing-use-value iii) Alternative-use-value iv) Going concern etc.</p> <p>5.4 Describe valuation processes like referencing, engineering inspection, inventory and schedule compilation.</p> <p>5.5 Discuss the methods of valuation for plant and machinery:-</p> <p>1) Comparison method 2) Depreciated replacement cost.</p> <p>5.6 Describe the state of art in the valuation of plant and machinery in Nigeria (including issues and problems.</p> <p>5.7 Explain the present and future demand for plant and machinery valuers in Nigeria.</p>	<p>i) Discuss the purposes, bases and methods of valuation of plant and machinery.</p> <p>ii) State the stapes for valuing plants and machinery.</p> <p>iii) Provide worked examples to students</p>	<p>Calculators Computer and Valuation Tables</p>	

**NATIONAL BOARD FOR TECHNICAL EDUCATION**

<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ESTATE MANAGEMENT</b>			
<b>COURSE: USE OF ENGLISH III</b>		<b>COURSE CODE: GNS 301</b>	<b>CONTACT HOUR: 2 –0 –0</b>
Course Specification			
Theoretical Content			
<b>Week</b>	<b>General Objective: 1.0 Know how to construct good sentences</b>		
	Special Learning Objective	Teachers Activities	Resources
	<b>General Objective: 1.0 Know how to construct good sentences</b>		
	<b>General Objective: 1.0 Know how to construct good sentences</b>		



**LIST OF EQUIPMENT FOR ESTATE MANAGEMENT**

**WORKSHOPS AND HAND (MAY NOT BE DUPLICATED IF USED IN A POOL)**

**(a) CARPENTRY (PLANES AND SAWS)**

1.	Jack planes	-	6
2.	Smoothing planes	-	6
3.	Block planes	-	6
4.	Shoulder planes	-	6
5.	Rebate planes	-	6
6.	Multi-plough plane	-	6
7.	Grooving/plough plane	-	6
8.	Bull nose plane	-	6
9.	Compass plane	-	6
10.	Jointing plane	-	6
11.	Side rabbet plane	-	6
12.	Rib saw	-	3
13.	Cross cut/hand saw	-	3
14.	Tenon saw	-	3
15.	Panel saw	-	3
16.	Coping saw	-	3
17.	Nest of saws/cp, [ass saw	-	3
18.	Key hole saw	-	3
19.	Brackets or Fretsaw	-	3
	<b>Chisels</b>		
20.	Ordinary firmer (set 3mm, 6mm, 12mm, 18mm, and 25mm	-	3
21.	Bevel-edge firmer (set) 3mm, 6mm, 12mm, 18mm and 25mm	-	3
22.	Mortice (set) – 6 each of 6mm, 9mm, and 12mm	-	3
23.	Pairing bevel-edge (set)	-	3
24.	Firmer gauge (set)	-	3

25.	Pairing firmer (set)	-	3
26.	Turning chisels (set)	-	3
	<b>Bits</b>		
27.	Centre (set)	-	2
28.	Augur (set)	-	2
29.	Twist (set)	-	2
30.	Counter sink (set)	-	2
31.	Rose (set)	-	2
32.	Gimlet	-	2
33.	Screw driver (set of 6)	-	6
34.	Mallet	-	3
35.	Claw hammer	-	3
36.	Pane hammer	-	3
37.	Warrington hammer	-	3
38.	Bradwal	-	3
	<b>Cramp</b>		
39.	Sash (set)	-	3
40.	'G' cramp	-	3
41.	Corner	-	3
42.	Bench hold fast	-	3
	<b>Miscellamuous</b>		
43.	Cork rubber	-	3
44.	Triangular files (set)	-	3
45.	Flat files	-	3
46.	Scraper (flat)	-	3
47.	Scraper (cabinet)	-	3
48.	Dividers	-	3
49.	Round files (set)	-	3
50.	Calipers set (insider and outsider)	-	3

51.	Spoke shaves (set)	-	3
52.	Wood-workers pencils	-	10
	<b>Machines</b>		
53.	Circular saw bench	-	1
54.	Curfacer	-	1
55.	Wood lathe with accessories	-	1
56.	Band saw	-	1
57.	Spindle moulder	-	1
58.	Radial circular saw	-	1
59.	Compressor and spraying unit	-	1
60.	Universal wood-worker	-	1
61.	Tenon saw	-	1
62.	Mortiser (chisel and chain)	-	1
63.	Sanders (drum, disc and belt)	-	1
64.	Cross cut salving machine	-	1
65.	Drilling machine	-	1
66.	Jig saw	-	1
67.	Presser (school size)	-	1
	<b>Utilities</b>		
68.	Work benches	-	10
69.	Tool trolleys	-	4
70.	Hangers for dresses	-	2
	<b>A/V</b>		
71.	Magnetic board	-	2
72.	Essay board	-	2
73.	Overhead projector and transparencies	-	1
74.	Slide projector	-	1
75.	Film strips projector	-	1

76.	Opaque projector	-	1
77.	Projector screen	-	1
<b>Dressing</b>			
78.	Overalls (aprons-brown)	-	1 per stud.
79.	Goggles	-	1 per stud.
<b>Chalk Board</b>			
80.	T. Square	-	1
81.	Set square 60/85	-	1
82.	Protractors	-	1
83.	Duster	-	1
84.	Ruler (meter rule)	-	1
<b>Powered Hand tools</b>			
86.	Circular saw	-	2
87.	Drills	-	2
88.	Orbital sander	-	2
89.	Dis sander	-	2
90.	Jig saw	-	2
91.	Blower	-	4
92.	Sprayer	-	4
93.	Grinding machines	-	1
94.	Sharpening machine	-	2
95.	Grinding stone	-	2
96.	Oil cans	-	1
97.	Saw vices	-	2
98.	Bench stop (metal type)	-	5
99.	Grinder for long blades e.g. surface plane	-	1
100.	Paint brushes (set)	-	5
101.	Paint contrainers	-	5
102.	Putty knives	-	5

103.	Gllue put 2 jacket (for animal gule)	-	4
104.	Band saw setter/sharener	-	1
105.	Glue spreader	-	20
106.	Glue brushes	-	20
107.	Glue heater (electrical)	-	2
	<b>Gauges, Knives, etc</b>		
108.	Marking gauge	-	2
109.	Mortice gauge	-	2
110.	Combined gauge	-	2
111.	Cutting gauge	-	2
112.	Marking square	-	2
113.	Venner Knives	-	2
114.	Try square	-	2
115.	Metre square	-	2
116.	Four fold wooden ruller metric	-	2
117.	Measuring tapes metrics (6m)	-	2
<b>(b)</b>	<b>CONCRETE/BLOCKLAYING</b>		
1.	Portable compressor and accessories	-	3
2.	Bar bending machine	-	2
3.	Steel cutter	-	1
4.	Mesh BRC Cutter	-	1
5.	Tyrolean machine	-	1
6.	Concrete vibrators: Poker and table vibrators	-	1 each
7.	Hand Hammer	-	4 each
8.	Concrete portable mixer (at least 2 cu.Ft capacity)	-	1
9.	Brick/block making machine	-	1
10.	Wheel barrow	-	5
11.	Watering can	-	5
12.	Shovels	-	30

13.	Head pan	-	10
14.	Terrazzo polishing machine	-	1
15.	Brick saw	-	1
16.	Concrete nail gun	-	1
17.	Hand tools e.g. spirit level, trowels hammers, rules, squares, mallet, tapes, floats etc	-	1
18.	Tilling mixer	-	Assorted
19.	Multi flow mixer	-	1
20.	Cement box	-	1
21.	Aggregates and sand box	-	5
22.	Slump cones	-	2
<b>(c) PLUMBING</b>			
1.	Guillotine (three feet)	-	1
2.	Fittings	-	Assorted
3.	Pumps various types (e.g. centrifugal, Submersive, etc)	-	1 each
4.	Valves, surge tanks, water hose	-	Assorted
5.	Pipe bending machine	-	1
6.	Light duty drilling machine	-	1
7.	Heavy duty drilling machine	-	1
8.	Table drilling machine	-	1
9.	Sheet metal folding machine	-	1
10.	Tapping machine	-	1
11.	Forge	-	1
12.	Arc welding machine	-	1
13.	Oxy-acetylene equipment	-	1
14.	Acetylene generator	-	1
15.	Electric soldering tool	-	1
16.	Refixhydraulic pipe bender	-	1
17.	Grinding machine	-	1
18.	Jack pump	-	6

19.	Pipe standingvices	-	6
20.	Table vices	-	1
21.	Copper tube bender	-	1
22.	Copper bit	-	
23.	Hacksaw	-	1
24.	Box wood bending dresser	-	10
25.	Shave hooks	-	6
26.	Tin snips	-	6
27.	Hacking knife	-	6
28.	Gimlet for lead pipe and wood screws	-	
29.	Wrencher	-	
30.	Disc	-	Assorted

**(d) PAINTING, DECORATION AND GLAZING**

1.	Spraying machine	-	2
2.	Paint rollers	-	6
3.	Diamond/glass	-	2
4.	Assorted hand tools e.g. knives, hooks, stirrer, Hammers, pincers, punch, straight edge, screw Drivers, wire brushes, trowels, chisels, strainers, Filling board, and hawk, rubbing block, etc.	-	
5.	Paint kettle and hook	-	2
6.	Bucket	-	5
7.	Tray	-	5
8.	Sanders	-	6
9.	Wire brush	-	3
10.	Descaling chisels	-	3
11.	Needle gum	-	2
12.	Gas torch	-	1
13.	Brushes	-	3
14.	Paint pad	-	2

15.	Paint mitten	-	1
<b>(e) ELECTRICAL WORKSHOP</b>			
1.	Bending vices/machine	-	3
2.	Electrician tool kits	-	3
3.	Soldering iron and equipment	-	
4.	Avo meters	-	2
5.	Ammeters	-	2
6.	Voltmeters	-	2
7.	Wiring boards	-	3
8.	Consumer units:-		
	i) circuit breakers	-	Assorted
	ii) distribution box	-	5
	iii) outlets, plugs and switches	-	Assorted
	v) meters	-	5
	vi) mains switch	-	Assorted
<b>II STUDIO/DRAWING ROOM ND AND HND</b>			
1.	<b>Studio Equipment:</b>		
	1. Standard Drawing Tables/Chairs for students	-	2 students to one drawing board
	2. Black board drawing sets of instruments	-	2
	3. Overhead projector	-	2
	4. Projector screen	-	2
	5. Drawing cabinets	-	4
	6. Mars sets of drawing pen	-	4
	7. Lerory lettering sets	-	4
	8. Standard T-square	-	
	8. Standard T-square	-	2 students to one T-square



9. Lighting drawing table	-	4
10. Measuring tapes	-	8
11. Scientific calculators	-	45
12. Valuation table/valuation table for	-	5 students
13. Scale rules	-	6
14. Cameras 35mm	-	6

### III OTHER FACILITIES

#### 1. Land Surveying Equipment Store – ND only (May not be duplicated if used in a pool)

1. Plane tables, Alidades, Bob's compasses and tripods	-	6
2. Levels, quickest only, and tripods	-	6
3. Level staffs – direct reading, 4m. long, (10mm, spacings)	-	6
4. Prismatic compasses and tripods	-	6
5. Theodolites tripods and bobs	-	3
6. Optical squares	-	6
7. Inclinator or abney levels	-	4
8. Hand sighting levels	-	4
9. Survey arrows	-	
10. Measuring band and frame (blue steel – Metric – 30m)	-	2
11. Chains (30m) – steel or plastic	-	6
12. Ranging rods	-	20
13. Field books level	-	12
14. Field survey boards and clips	-	30
15. Drawing board cum work table (0.9mx0.7m)	-	30
16. Planimeter	-	30
17. Sterescope	-	4
18. Stereocomparagraphy	-	4
19. Pantography	-	1
20. Linen/plastic tapes (30m)	-	1

21. Maps O.S. various examples	-	
22. Early and current maps and projections in form of wall charts	-	Various
23. Examples of thematic maps, e.g. isogonic, topographic, etc.	-	Various
24. Set of Nigerian Isogonic	-	1
25. Set of Standard Survey markers (examples)	-	1
26. Set of triangular rules	-	1
27. Set of scribing instruments	-	1
28. Beam compasses	-	1
29. Mechanical lettering devices (set)	-	1
30. "Rub-off", "Rub-on" letters, numbers, symbols	-	
<b>2. Duplicating and Printing Room</b> <b>(May not be duplicated if used in a pool)</b>		
1. Photostating Machine	-	1
2. Plan Printing Machine	-	1
3. Duplicating Machine	-	1
4. Trimming Machine	-	1
5. Scanning Machine	-	1
6. Steel Cabinet	-	1
<b>1. COMPUTER LABORATORY – HND</b> <b>(May not be duplicated if used in a pool)</b>		
1. Portable computers complete wearness with relevant software packages	-	5
2. Printers and allied equipment as well as consumables -		
3. Programmable calculators with mathematical and statistical functions and characters	-	15

### 3. Safety Equipment for Each Workshop

1. First aid box	-	1 per 10 students
2. Safety goggles	-	15
3. Safety caps	-	15
4. Rubber boots	-	15
5. Leather apron	-	15
6. Leather palm gloves	-	15
7. Fire extinguishers	-	4 per 10 students
8. Fire buckets	-	4 per 10 students
9. Safety charts and drawings	-	Assorted

## LIST OF PARTICIPANTS FOR ND AND HND ESTATE MANAGEMENT

1. Noble N. Hemuka (Chairman) - Nigerian Institutes of Estate Surveyors and Valuers.
2. Olofa s. Aderemi - Department of Estate Management, The Polytechnic, Ibadan.
3. Godwin Oghodalo - Department of Estate Management, Federal Polytechnic, Auchi.
4. Professor C.A. Ajayi - Department of Estate Management, Obafemi Awolowo University, Ile-Ife.
5. Ukabam T.A. (Mrs.) - Department of Estate Management, College of Technology, Yaba, Lagos.
6. TPL. O.O. Oratokhai - National Board for Technical Education, Kaduna.
7. Mohammed Ibrahim - National Board for Technical Education, Kaduna.