

# **NATIONAL BOARD FOR TECHNICAL EDUCATION**



## **CURRICULUM AND COURSE SPECIFICATION**

**FOR**

## **NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY**

**DEVELOPED IN COLLABORATION WITH**

**ENVIRONMENTAL HEALTH OFFICERS REGISTRATION  
COUNCIL OF NIGERIA (EHORECON), ABUJA**

**MARCH, 2021**

**GENERAL INFORMATION**

## 1.0 PROGRAMME NOMENCLATURE:

National Diploma (ND) in Public Health Technology Programme

## 2.0 PROGRAMME GOAL:

The National Diploma Programme in Public Health Technology is designed to provide basic academic and professional training required to assist in achieving Public Health at the community level.

## 3.0 OBJECTIVES OF THE PROGRAMME:

The objectives of the ND programme in Public Health are:

- i) Enable student acquire basic skill in Public Health
- ii) Carry out community diagnosis and mobilization
- iii) Conduct Health Education and promotion in the community
- iv) Collect, analyse and present health data
- v) Assist in sensitizing and counseling Community members to actively participate in Public Health programmes
- vi) Participate in preventive and promotive in health care service delivery

## 4.0 ENTRY REQUIREMENTS

The minimum entry requirements into the ND Public Health Technology programme are:

- i. Five (5) credit passes in: WASC, NECO or GCE 'O' Level; at not more than two (2) sittings.
- ii. The subject combination must include: English, Mathematics, Biology/Health Science, Chemistry and Physics
- iii. Environmental Health Assistant Certificate (with CGPA not less than 2.50) from accredited programme/Institution.

## 5.0 STRUCTURE/DURATION OF THE PROGRAMME:

- i. The ND Public Health Technology is a programme structured to last for two (2) years (four semesters) of classroom work, laboratory and field practicum.
- ii. The two (2) years programme incorporates 3-4 months SIWES (Supervised Industrial Work Experience Scheme), which shall take place at the end of the second semester of the second year.
- iii. Each semester shall be for a period of 17-18 weeks, made up as follows:
- iv. 15 contact weeks of teaching (i.e. lectures and practical sessions etc) and 2 -3 weeks for registration, continuous assessment and examinations.

## 6.0 CURRICULUM:

The syllabus of the ND Public Health Technology programme consists of four (4) main components namely:

- i. General studies/General education courses
- ii. Foundation courses
- iii. Professional courses
- iv. SIWES.

## 7.0 ASSESSMENT CRITERIA:

	<b>Class work/practical &amp; Laboratory Works</b>	<b>Semester Examinations</b>	<b>Total</b>
Theory	10	30	40
Practical	20	40	60
<b>Total</b>	-	-	<b>100</b>

## 8.0 AWARD OF NATIONAL DIPLOMA

The National Diploma Certificate shall be awarded by the authority of the Academic Board of the Institution. The conditions for the award of National Diploma in Public Health Technology Certificate include the following:

- i) Satisfactory performance in all prescribed course work, continuous assessment, workshop practices, laboratory work field trip etc.
- ii) Satisfactory performance in all semester examinations.
- iii) Satisfactory completion of written project/seminar papers.
- iv) The candidate should have completed a minimum of 72 and a maximum of 80 semester credit units.

### **DIPLOMA CLASSIFICATION**

The National Diploma shall be awarded based on the following classifications by NBTE:

Distinction	-	CGPA 3.50 - 4.00
Upper Credit	-	CGPA 3.00 - 3.49
Lower Credit	-	CGPA 2.50 - 2.99
Pass	-	CGPA 2.00 - 2.49

Additionally, Candidates must pass the professional Certification examination administered by the Environmental Health Officers Registration Council of Nigeria (EHORECON) in the second semester of ND II (Year Two). This shall enable the student to be inducted into the profession with a temporary license to practice the profession as a Public Health Technician.

The professional Certification examination shall involve the following papers:

- i) Oral examination
- ii) Practical examination
- iii) Theory examination made up of essay and multi choice questions (MCQ) of 50. The Essay and MCQ will test the knowledge of Public Health

### **9.0 ACCREDITATION OF PROGRAMME**

The ND programme shall be accredited by the NBTE in conjunction with EHORECON before Diploma can be awarded. Details about the process of accrediting the programme for the award of ND is available on the Board's website [www.nbte.gov.ng](http://www.nbte.gov.ng) or through correspondence addressed to:

The Executive Secretary, Attention – Monotechnic Programmes Department., NBTE, Plot 'B' Bida Road, P.M.B 2239, Kaduna, Nigeria.

### **10.0 LOG BOOK:**

The Student shall maintain a Log Book for each course. It shall contain all the recordings of the day-to-day, weekly and semester practical works/activities from day one to the end of the programme. This is to be checked, marked appropriately and endorsed by all supervisors concerned at the end of every week.

### **11.0 FINAL YEAR PROJECTS:**

Final year students of the programme are expected to carry out project works, either on individual or group basis (only 2 per group). The project topics should as much as possible be related to the programme and serve as useful tools for further Research and /or Development Projects should be properly supervised and their reports well presented. The institution should develop formats for presenting and grading of projects. The formats should be adopted as applied to each stakeholder

## CURRICULUM TABLE FOR NATIONAL DIPLOMA (ND) PUBLIC HEALTH TECHNOLOGY PROGRAMME

### 100 LEVEL, FIRST SEMESTER

S/No.	COURSE CODE	COURSE TITLE	L	T	P	CU	CH	PRE-REQUISITE COURSES
1.	PHT 111	Introduction to Public Health	2	-	1	3	45	
2.	MTH 101	General Mathematics	2	1	-	3	45	
3.	STA 101	Introduction to Statistics	2		-	2	30	
4.	GNS 230	General Biology	1	-	1	2	30	
5.	GST 101	Use of English	2	-	-	2	30	
6.	PHS 111	Introduction to Pharmacology and Therapeutics	2	-	-	2	30	
7.	COM 111	Introduction to Computer Science	1	-	2	3	45	
8.	PHT 112	Immunology and Immunization	2	-	1	3	45	
9.	GLT 111	General Laboratory Technique	1	-	2	3	45	
10	DTH 115	Introduction to Anatomy and Physiology	2	-	1	3	45	
11	GNS 127	Citizenship Education 1	2	-	-	2	30	
		<b>Total</b>	<b>19</b>	<b>1</b>	<b>8</b>	<b>28</b>	<b>405</b>	

## CURRICULUM TABLE FOR NATIONAL DIPLOMA (ND) PUBLIC HEALTH TECHNOLOGY PROGRAMME

### 100 LEVEL, SECOND SEMESTER

S/No.	COURSE CODE	COURSE TITLE	L	T	P	CU	CH	PRE-REQUISITE COURSES
1.	GNS 213	Introduction to Medical Sociology	2	-	-	2	30	
2	PHT121	Introduction to Health Education and Promotion	2	-	1	3	45	
3.	GNS 112	Introduction to General Chemistry	2	-	1	3	45	
4.	PHT 122	Introduction to Biostatistics	2	-	1	3	45	
5.	EHT 125	Public Health Nutrition	3	-	-	3	45	
6.	PHT 124	Substance Use and Abuse	2	-	-	2	30	
7.	EHT 111	Introduction to Environmental Health	2	-	1	3	45	
8.	PHT 126	Introduction to Demography	2	-	-	2	30	
9.	CHO 136	Introduction to Mental Health	2	-	-	2	30	
10	EHT 212	Introduction to Epidemiology	2	-	-	2	30	
11	EED 126	Introduction to Entrepreneurship Education	1	-	1	2	30	
		<b>Total</b>	<b>22</b>		<b>5</b>	<b>27</b>	<b>405</b>	

## CURRICULUM TABLE FOR NATIONAL DIPLOMA (ND) PUBLIC HEALTH TECHNOLOGY PROGRAMME

### 200 LEVEL, FIRST SEMESTER

S/No.	COURSE CODE	COURSE TITLE	L	T	P	CU	CH	PRE-REQUISITE COURSES
1.	PHT 201	Introduction to Community Health	2	-	-	2	30	
2	PHT 211	Introduction to Communicable and Non Communicable Disease	3	-	-	3	45	
3.	PHT 212	Primary Health Care	2	-	1	3	45	
4.	GNS 218	Research Methodology	2	-	-	2	30	
5.	PHT 213	Introduction to Emergency Response	1	-	1	2	30	
6.	PHT 214	Maternal and Child Health	2	-	1	3	45	
7.	STB 211	Introduction to Microbiology and Parasitology	2	-	1	3	45	
8.	PHT 216	Seminar in Public Health	1	-	1	2	30	
9.	EED 216	Practice of Entrepreneurship	1	-	1	2	30	
		<b>Total</b>	<b>16</b>		<b>6</b>	<b>22</b>	<b>330</b>	

## CURRICULUM TABLE FOR NATIONAL DIPLOMA (ND) PUBLIC HEALTH TECHNOLOGY PROGRAMME

### SECOND SEMESTER, 200 LEVEL

S/No.	COURSE CODE	COURSE TITLE	L	T	P	CU	CH	PRE-REQUISITE COURSES
1.	PHT 221	Public Health Planning and Management	3	-	-	3	45	
2	PHT 222	First Aid	2	-	1	3	45	
3.	EHT 211	Introduction to Public Health Pest Management	2	-	1	3	45	
4.	EHT 223	Public/Environmental Health Laws	2	-	1	3	45	
5.	PHT 225	Global and Contemporary Health Issues	2	-	-	2	30	
6.	EHT 315	Health Economics	2	-	-	2	30	
7.	PHT 227	Project	2	-	4	6	90	
8.		<b>SIWES</b>						
		<b>Total</b>	<b>15</b>	<b>-</b>	<b>7</b>	<b>22</b>	<b>330</b>	

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO PUBLIC HEALTH</b>						
<b>COURSE CODE: PHT 111</b>						
<b>DURATION:</b>	Lecture: - 30 Hours	Tutorial:	Practical: - 15 Hours	Total: HRS 45Hours		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The goal of the course is to provide the students with knowledge on public health, history and principles.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1. Understand public health Concept. 2. Understand the public health history. 3. Understand the principles and practice of public health.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand public health, history and principles.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to: 1.1 Define Public Health 1.2 Discuss the evolution and History of Public Health 1.3 Analyze health situations – past & Present 1.4 Explain the principles of prevention of Diseases in Community 1.5 Enumerate the role of Public Health in health and human development in the community.	i. Explore various definitions, Identifying the limitations. ii. Discuss era by era scientist and limitations in history. iii. Explain the role of public health officers in human health& development.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	1.1 Identify the challenges encountered by the early and current practitioners and scientists in public health. 1.2 Highlight the contributions of public health in health and human development 1.3 Students should be able to identify Public Health challenges in the community	Guide the students on the history of public health using appropriate teaching Aids.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the Concept of public health.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

<p>2.1 Explain epidemiology, prevention, control &amp; management of diseases of public health importance.</p> <p>2.2 Identify relevant public health laws and institutions of public health importance.</p> <p>2.3 Discharge duties effectively in an administrative capacity in a health organization such as local and international health departments.</p> <p>2.4 Acquire administrative skills essential for smooth functioning of health establishments</p> <p>2.5 Conduct epidemiological investigation of various diseases during epidemic.</p> <p>2.6 Understand the criteria for sanitation of various place viz; slaughter house, eateries, sewage treatment plants, ports &amp; airport, milk dairies and be in position to inspect &amp; recommend corrections.</p> <p>2.7 Plan, implement &amp; evaluate school health services.</p> <p>2.8 Plan, implement &amp; evaluate programs related to Occupational Health and Safety.</p>	<p>i. Identify the necessary tools and management strategy for disease control.</p> <p>ii. Outline public health institutions, public health laws, tools and implementation challenges.</p> <p>iii. Explain investigation procedures for disease control.</p> <p>iv. State the Sanitary requirement of various places e.g. Slaughter house, eateries,</p> <p>v. Describe the functions of public health professionals in school sanitation, Occupational health and safety.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book Photo micrographs</p>	<p>i. Identify the guiding principles in management and control of diseases.</p> <p>ii. Identify relevant public health laws, tools and institutions for the control and management of diseases</p>	<p>Moderate the activities and guide the students on the narratives, history investigation etc. concerning the course.</p>	<p>Projector Text book Internet Lecture notes Charts Pictorials</p>	<p>Continuous assessment Practical Assignment Examination</p>
---	---	---	---	--	---	---

**GENERAL OBJECTIVE: 3.0** Understand the basic Practice (ethics) of public health

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>3.1 Explain the basic ethical principles, such as respect for person, beneficence, justice, among others.</p>	<p>Explain public health practice of a regulated profession with established ethical code of conducts.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Identify various ethics in public health practice.</p>	<p>Display ethical code of conduct to the students.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Quiz</p>

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: General Mathematics</b>						
<b>COURSE CODE: MTH 111</b>						
<b>DURATION:</b>	Lecture: - 30hours	Tutorial: Nil	Practical: - Nil	Total: 30 hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL::</b> This course is designed to enable students acquire basic knowledge of Mathematics in solving problems in their area of specification.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the law of indices and its application to Public Health Practice. 2.0 Explain the theory of logarithms and surds and their application in manipulating mathematical expressions. 3.0 Comprehend the principles underlying the construction of charts and graphs. 4.0 Understand the procedure for solving quadratic equations. 5.0 Understand the concept of equation and methods of solving different types of equations and their application to Public Health Practice. 6.0 Understand the set theory and probability and its application to Public Health Practice.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the law of indices and its application to Public Health Practice						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Explain the laws of indices. 1.2 Relate law of indices to Public Health Practice.	The teacher should explain the laws of indices and their application to Public Health.	Projector, Text book Internet Lecture note Chart White board Marker Tutorial	Students should solve relevant problems on indices.	Teacher to guide the students in solving the indices.	Projector, Text book Internet Lecture note Chart White board Markers	-Test -Examination -Class presentation -Assignments
<b>GENERAL OBJECTIVE: 2.0</b> Explain the theory of logarithms and surds and their application in manipulating mathematical expressions.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Explain logarithm theory 2.2 Explain Surds 2.3 Discuss the application of Logarithm and surds in manipulating mathematical expressions.	The teacher should explain logarithm theory and Surds, as well as their application in manipulating mathematical expressions relevant to Public Health Practice	Text book Internet Lecture note White board Marker Tutorial	Students should solve logarithms and surds equations and relate them to Public Health.	Teacher should guide the students to carry out the task.	Text book Internet Lecture note White board Marker Tutorial	Assignment Class work Test Examination
<b>GENERAL OBJECTIVE: 3.0:</b> Comprehend the principles underlying the construction of graphs and charts.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

3.1 Comprehend the principles underlying the construction of graphs and Charts.	Teacher should guide the students on the construction of graphs and charts and its interpretation.	Projector, Text book Internet Lecture note Chart Pictures White board Marker	Students should construct charts and graphs, and also interpret the results.	Teacher should guide the students in constructing the charts and graphs as well as the interpretation of the result.	Projector, Text book Internet Lecture note Chart Pictures White board Marker	Assignment Class work Test Examination  Tutorials
3.2 Explain the procedure for plotting graphs and charts.						
3.3 Interpret the graphs and charts with accuracy.						

**GENERAL OBJECTIVE: 4.0:** Understand the procedure for solving quadratic equations.

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
4.1 Explain the procedure for solving quadratic equation.	Teacher should explain the necessary steps in solving quadratic equation.	Text book Internet Lecture note Chart Pictures White board Marker Tutorials	Student should solve quadratic equations.	Teacher should guide the student towards solving the equation with precision.	Text book Internet Lecture note Chart Pictures White board Marker Tutorials	Assignment Class work Test Examination

**GENERAL OBJECTIVE:5.0** Understand the concept of equation and methods of solving different types of equations and their application to Public Health Practice

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
5.1 Expatriate on the concept of equation and methods of solving the equations. 5.2 Enumerate the types of equations. 5.3 Explain the relationship of mathematical equations to Public Health Practices.	Teacher should explain equations and their types, as well as the procedure of solving the equations.	Projector, Text book Internet Lecture note Chart Pictures White board Marker	Students should solve the equation and list the different types of equations.	Teacher to guide the student in the process of solving the equations.	Projector, Text book Internet Lecture note Chart Pictures White board Marker	Assignment Class work Test Examination

**GENERAL OBJECTIVE: 6.0** Understand the set theory and probability and its application to Public Health Practice.

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
---------------------------------------	---------------------	--------------------	---	---------------------	--------------------	------------

6.1 Explain set theory.	Teacher should explain set, probability along with solving relevant problems.	Text book Internet Lecture note Chart Pictures White board Marker	Students should solve mathematical problems on set and probability and relate their application to Public Health.	Teacher should guide the students in solving the problems and coming up with the relationship	Text book Internet Lecture note Chart Pictures White board Marker	Assignment Class work Test Examination
6.2 Explain Probability.						
6.3 Solve mathematical problems on sets and probability.						
6.4 Explain the application of set and probability to Public Health Practice.						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Statistics</b>						
<b>COURSE CODE: STA 111</b>						
<b>DURATION:</b>	Lecture: - 30 hours	Tutorial: Nil	Practical: - Nil	Total: 30 hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to enable students to acquire basic knowledge of descriptive statistics.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>Understand the nature of statistical data, their types and uses</li> <li>Understand the procedures for collection of statistical data</li> <li>Understand the difference between total coverage and partial coverage in data collection</li> <li>Understand the methods of data compilation</li> <li>Understand the methods of data presentation.</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the nature of statistical data, their types and uses						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Statistics 1.2 Identify various sources of statistical data. 1.3 State important uses of statistics 1.4 State uses of statistical data 1.5 Explain quantitative data 1.6 Identify various scales of measurement.	i. Explain the nature of Statistics ii. Introduce various sources and discuss how they are used (Social , Health and Economic, Biological, demography, Industrial)	-Books of Recorded Statistics -Internet -textbooks	i. Locate sources of Statistical data. ii. Identify sources for Specific need.	i. Encourage investigating sources ii. Encourage Use of Internet	-Books of recorded Statistics -Internet -Text books	Test  Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the procedures for collection of statistical data						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

2.1 Describe basic sampling techniques 2.2 Distinguish between the following methods of data collection 2.3 Design questionnaires and formats for data collection. 2.4 Identify the problems and types of error that arise in data collection. 2.5 Collect data on various sources listed in 1.2 above. 2.6 Collect primary and secondary data 2.7 Collect primary and Secondary data	i. Discuss simple random sampling  ii. Discuss systematic sampling	Textbooks  Lecture  Notes	Determine the concept of random sampling using simple data	Discuss simple random sampling,	Textbooks  Lecture notes	Test  Examination
---	--	---------------------------------------	--	---------------------------------	--------------------------------	-------------------------

**GENERAL OBJECTIVE: 3.0** Understand the difference between total coverage and partial coverage in data collection

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective Practical)	Teachers Activities	Learning Resources	Evaluation
Students to: 3.1 Distinguish between census and sampling surveys. 3.2 Explain the meaning and purpose of pilot enquires. 3.3 Identify the advantages and disadvantages of sampling. 3.4 Distinguish between Probability and non-probability methods. 3.5. Explain the various probability-sampling methods. 3.6. Explain the various non probability sampling method purpose judgment and quota) 3.7. Explain the use of post enumeration surveys. 3.8. Collect data applying the sampling methods in 3.5 above	i. Explain and discuss the process of undertaking a statistical sample.  ii. Explain and discuss the process of undertaking a statistical sample.	- Checklist  - Writing material  - Other survey tools.	i. Use examples to illustrate theoretical content.  ii. Discuss random numbertable.	i. Encourage students to collect a statistical sample  ii. Use examples to illustrate theoretical contents.  iii. Encourage students to collect statistical sample.	Checklist  - Writing material  - Other survey tools.	Test  Examination

**GENERAL OBJECTIVE: 4.0** Understand methods of data compilation

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
---------------------------------------	---------------------	--------------------	---	---------------------	--------------------	------------

Students to: 4.1 Identify the different categories of collected data 4.2 Classify the data into the various categories 4.3 Verify the sorted data 4.4 Identify the different data storage methods 4.5 Compile discrete and continuous data	i. Explain and discuss the concepts covered.  ii. Explain and discuss the concepts covered.	-Statistical Kits  -Textbooks	i. Show ability to categorize various data collected.  ii. Use examples to illustrate theoretical contents.	i. Explain and supervise student exercises and assess student work. ii. Explain and supervise student exercises and assess student work.	-Statistical Kits  -Checklists  -Survey tools	Test Examination
<b>GENERAL OBJECTIVE: 5.0</b> Understand the methods of data presentation						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to : 5.1 Identify the various types of statistical table (frequency and contingency tables, simple informative tables, table for reference, complex tables) 5.2 Explain various methods of data presentation (tabular, graphical, pictorial, text etc) 5.3 Construct scatter diagrams frequency tables, and graphs. 5.4 Explain merits and demerits of chart/diagrams above. 5.5 Present life data	Explain and discuss the concepts covered	-Textbooks  -Statistical Tables  -Projector  -Whiteboard  -Markers	Demonstrate, using examples, various methods of data presentation	Explain and supervise student exercises and assess student work	Textbooks  Statistical tables	Test Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>					
<b>COURSE TITLE: General Biology</b>					
<b>COURSE CODE: GNS 230</b>					
<b>DURATION:</b>	Lecture: - 15hours	Tutorial: Nil	Practical: - 15hours	Total: 30 hours	
<b>CREDIT UNITS: 2</b>					
<b>GOAL:</b> This course is designed to introduce the students to basic biological sciences and to make them understand the environment in which they live					
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:					
1. Understand the concept of living things 2. Understand the structure of cells 3. Understand the principal features of different groups of living things					

4. Know the methods by which plants and animals feed themselves 5. Know the methods by which plants and animals generate energy from their food 6. Understand the methods by which substances are moved in the bodies of plants and animals 7. Understand how plants and animals remove their waste products 8. Understand how living things move 9. Know how living things increase in size and number 10. Understand the interaction between an organism and its environment 11. Know Man's interference with his environment 12. Understand the fundamentals of inheritance						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the concept of living things						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to : 1.1 Define Biology 1.2 List living and non-living things in the immediate environment 1.3 List the characteristics of living organisms 1.4 Illustrate the differences between a plant, an animal and a protist e.g. Mango tree plant mycobacterium tuberculosis for protist, Man for animal	i. Trace the origin of the term "Biology"  ii. Discuss the living and non-livings around.	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Group Students into pairs for collection of all common pests of human body, stored product, livestock, house-hold, Field crops	Moderate the group activities	Projector Video/Audio devices  Models	Test  Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the structure of cells.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to: Define cell theory 2.2 Distinguish between prokaryotic and eukaryotic cells 2.3 Observe some cells under the microscope (e.g. a plant cell, and animal cell) 2.4 Draw and label the cells observed in 2.3 above 2.5 Differentiate between a plant and animal cell 2.6 List the functions of the different cell organelles.	Provide the equipment and explain the operational mechanism.	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Group Students into pairs for collection of all common pests of human body, stored product, livestock, house-hold, Field crops.	Moderate the group activities.	Projector Video/Audio devices Models	Test  Examination
<b>GENERAL OBJECTIVE: 3.0</b> Understand the principal features of different groups of living things						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

<p>Students to:</p> <p>3.1 Name the four major divisions under the plant kingdom: Thallophyta, Bryophyta, Pteridophyta, and Spermatophyta</p> <p>3.2 State the characteristic features in each division in 3.1 above.</p> <p>3.3 List at least four differences between Algae and Fungi e.g. Chloroplast, autotrophic/ heterotrophic, starch/ glycogen, presence of chitin in fungi, etc.</p> <p>3.4 Give two examples of each group in 3.3 above</p> <p>3.5 Describe the external structures of a flowering plant.</p> <p>3.6 Name the different phyla under the animal kingdom</p> <p>3.7 Explain the distinguishing characteristics of each phylum mentioned in 3.6 above</p> <p>3.8 Name two examples of animals belonging to each group</p> <p>3.9 Describe the external structures of a mammal</p>	<p>Emphasis on animals and plants of public health importance</p>	<p>Projector</p> <p>Text book</p> <p>Internet</p> <p>Lecture notes</p> <p>Charts</p> <p>Pictures</p>	<p>Group Students into pairs for collection of all common pests of human body, stored product, livestock, household, Field crops.</p>	<p>Encourage group activities in collection of plant and animal samples</p>	<p>Projector</p> <p>Text book</p> <p>Internet</p> <p>Lecture notes</p> <p>Charts</p> <p>Pictures</p>	<p>Test</p> <p>Examination</p>
<p><b>GENERAL OBJECTIVE:</b> 4.0 Know the methods by which plants and animals feed themselves</p>						
<p><b>Specific Learning Objectives (Theory)</b></p>	<p><b>Teachers Activities</b></p>	<p><b>Learning Resources</b></p>	<p><b>Specific Learning Objective (Practical)</b></p>	<p><b>Teachers Activities</b></p>	<p><b>Learning Resources</b></p>	<p><b>Evaluation</b></p>
<p>Students to:</p> <p>4.1 Define food</p> <p>4.2 Distinguish between the food of plants and that of animals</p> <p>4.3 Distinguish between autotrophic and heterotrophic modes of feeding</p> <p>4.4 Explain the different types of heterotrophy e.g. parasitism, saprophytism</p> <p>4.5 Explain the different types of autotrophy e.g. photosynthesis, chemosynthesis</p> <p>4.6 List the stages involved in feeding in animals e.g. ingestion, digestion, assimilation and egestion</p> <p>4.7 Draw and label the digestive system in man</p>	<p>Discuss the topics covered and give notes as appropriate</p>	<p>Projector</p> <p>Text book</p> <p>Internet</p> <p>Lecture notes</p> <p>Charts</p> <p>Pictures</p>	<p>Group Students into pairs for collection of all common pests of human body, stored product, livestock, house-hold, Field crops.</p>	<p>Encourage team work among the students</p>	<p>Projector</p> <p>Video/Audio devices</p> <p>Models</p>	<ul style="list-style-type: none"> <li>• Test</li> <li>• Examination</li> </ul>

<b>GENERAL OBJECTIVE: 5.0</b> Know the methods by which plants and animals generate energy from their food							
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>	
5.1 Distinguish between breathing and respiration 5.2 Differentiate between aerobic and anaerobic respiration. 5.3 Locate sites of respiration Incells (e.g. Mitochondrion and free Cytoplasm) 5.4 State the economic importance of fermentation (production of alcoholic beverages, lactic acid, and citric acid 5.5 List the respiratory organs in animals (e.g. plasma membrane in protozoa, tracheal system in arthropods, gills in fish and lungs in terrestrial animals	Describe breathing, respiration, aerobic and anaerobic respiration with example.	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Demonstrate inhalation , Exhalation.	Use Models to showcase respiratory organs eg. Lungs.	Projector Video/Audio devices Models	Test Examination	
<b>GENERAL OBJECTIVE: 6.0</b> Understand the methods by which substances are moved in the bodies of plants and animals							
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>	
6.1 Define (a) osmosis (b) diffusion 6.2 Demonstrate Osmosis and Diffusion by simple experiments 6.3 Explain the importance of transpiration 6.4 Explain the importance of Translocation 6.5 Describe the vascular system of the plant 6.6 Draw and label the structure of a Mammalian heart. 6.7 Explain the structure and function of blood.	Explain the process of osmosis, diffusion, transpiration and translocation.	Projector Text book Internet Lecture notes Charts Pictures	Group students into two or more to carry out experiment on osmosis, diffusion, transpiration etc.	Guide the students practical.	Projector Video/Audio devices Models	Group Presentation	
<b>GENERAL OBJECTIVE: 7.0</b> : Understand how plants and animals remove their waste products							
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>	

7.1 Define Excretion. 7.2 Name the Excretory Organs and Excretory Products in man. 7.3 List the structures involved in excretion and the excretory products in plants. 7.4 Explain the processes of osmo-regulation in plants and various types of animals	Identify the excretory organs and explain the functional mechanism.	Projector Text book Internet Lecture notes Charts Pictures Models	Student to identify excretory organs and their functions.	Provide models for the study.	Projector  Video/Audio devices  Models	Assignment
---	---	---	---	-------------------------------	--	------------

**GENERAL OBJECTIVE: 8.0** Understand how living things move

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
8.1 List the organs of Locomotion in animals (e.g. pseudopodia; cilia, flagella, chetea, jointed limbs etc.) 8.2 Describe the general plan of the skeleton in mammals 8.3 State the functions of the skeleton 8.4 List the different types of movements in plants (e.g. tropisms, taxisms, nastic movements etc.)	Discuss the outlined organs.	Text book Internet Lecture notes Models	Identify the organs and describe the movement pattern.	Make models available for the study.	Models Charts Pictures Tutorial	Assignments

**GENERAL OBJECTIVE: 9.0** Know how living things increase in size and number.

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
9.1 Distinguish between asexual and sexual reproduction 9.2 List some examples of asexual reproduction in plants and animals (e.g. binary fission in bacteria, budding in yeast, fragmentation in spirogyra, grafting etc.) 9.3 Draw and label some sexual reproductive organs in plants and animals e.g. the flower in plants and male and female reproductive organs in mammals 9.4 List the advantages of asexual and sexual reproduction in plants and animals 9.5 Note the modern advances in plant cultures in in-vitro and in-vivo fertilization (e.g. test tube babies and artificial insemination respectively	Discuss the topics with vivid examples.	Text book  Internet  Lecture notes  Charts  Pictures	Identify organisms that exhibit sexual, asexual reproduction.	Provide models and explain the reproductive Behaviour.	Models,  Test books  Charts	Test  Examination

9.6 Describe methods of measuring growth in living things						
<b>GENERAL OBJECTIVE: 10:</b> Understand the interaction between an organism and its environment						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
10.1 Define the following Terms (a) Ecology (b) Habitat (c) Community 10.2 Explain the interaction of living things as shown by predation, parasitism, saprophytism, commensalism 10.3 Explain the food Relationship in the community (e.g. food chain, food web, pyramid of numbers etc.) 10.4 List five useful and five harmful microbes 10.5 State the causes and control of the following diseases (a) malaria (b) guinea worm (c) bilharzia (d) river blindness 10.6 State the common sources of environmental pollution 10.7 Describe the effects of environmental pollution on living organisms 10.8 List the control measures of environmental pollution described in 10.6 above	i. Explain ecology, habitat, community, predation, parasitism, etc. with examples.  ii. Describe food chain, food web etc.  iii. Discuss disease causation, prevention and control measure e.g. In highlighted diseases.	Text book  Internet  Lecture notes  Charts  Pictures  Models	Group students into pairs for presentation on interaction of living organisms, food relationships and disease causation and control.	Guide students group activities.	-Preserved Insect -Preserved foods -diagram of saprophytism, commensalism etc.	Test  Examination
<b>GENERAL OBJECTIVE: 11:</b> Know Man's interference with his environment						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
11.1 Explain the composition and characteristics of a fertile soil. 11.2 List the sources of soil erosion.	I Identify various soil types, erosion types, and explain causes and	Projector Text book Internet Lecture notes		Guide the students in identifying the soil	Soil Samples  Charts of erosion sites	Test  Examination

11.3 Give three methods for prevention of soil erosion.	prevention of erosion.	Charts Pictures Tutorials		types, man's harmful activities etc		
11.4 Explain Man's activities (farming, mining, deforestation, overgrazing, etc.) that accentuate disasters (e.g. desert encroachment, flooding etc.)						
11.5 Enumerate different methods by which the deleterious effects can be minimized.						
11.6 Explain the need for the creation of dams and lakes						
11.7 List the disadvantage of man-made lakes.						

**GENERAL OBJECTIVE: 12:** Understand the fundamentals of inheritance

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
12.1 Explain the roles of chromosomes and genes found in the nucleus of the cell	i. Discuss the topics  ii. Present notes	Projector	i Describe the roles of the chromosomes, genes, etc.  ii Practice blood grouping / compatibility etc.	Guide students to make group presentations	Projector	Test  Examination
12.2 Explain the role of gametes in cross fertilization		Text book			Video/Audio devices	
12.3 Define hybridization, phenotypes and genotypes		Internet			Models	
12.4 Explain the ABO blood Groupings		Lecture notes				
12.5 Describe how sex is Determined in man		Charts				
12.6 Explain sex-linked Characters (e.g. haemophilia)		Pictures				

**PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY**

**COURSE TITLE: Use of English**

**COURSE CODE: GNS 101**

**DURATION:** Lecture: - 30Hours      Tutorial: Nil      Practical: - Nil      Total: 30 Hours

**CREDIT UNITS: 2**

**GOAL:** This course is designed to provide the student with the necessary language skills which enable him to cope effectively with the challenges of his course, to use English Language effectively in the practice of his chosen profession as well as interact with others in the society.

<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Develop appropriate study skills. 2.0 Know the nature of language. 3.0 Understand the basic rules of grammar. 4.0 Know the essential qualities of paragraph. 5.0 Appreciate literacy works in English.						
<b>GENERAL OBJECTIVE: 1.0</b> Develop appropriate study skills.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<b>Study Skills</b> 1.1 Explain the necessity for acquiring good note taking/making techniques. 1.2 List the methods of note-taking/making. 1.3 Use the dictionary correctly 1.4 List information sources in the Library. 1.5 Locate information in the sources listed in 1.4 above. 1.6 Identify good reading habits. 1.7 Explain the different methods of reading, viz, scan, skim, normal and study. 1.8 Use the different methods of reading explained in 1.7 above.	<ul style="list-style-type: none"> <li>• Explain the necessity for acquiring good note taking/making techniques.</li> <li>• List the methods of note-taking/making.</li> <li>• Use the dictionary correctly</li> <li>• List information sources in the Library.</li> <li>• Locate information in the sources listed in 1.4 above.</li> <li>• Identity good reading habits.</li> <li>• Explain the different methods of reading, viz, scan, skim, normal and study.</li> <li>• Use the different methods of reading explained in 1.7 above.</li> </ul>	Lectures note  Textbooks Charts	Practice note taking.  Practice reading	Guide the students on the use of dictionary. Guide students to practice reading newspaper, novel, and professional books.	Lectures note  Textbooks Charts	Test  Examination  Assignment  Class work
<b>GENERAL OBJECTIVE: 2.0</b> Know the nature of language.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<b>Language</b> 2.1 Explain the concept of language. 2.2 List the characteristics of language.	<ul style="list-style-type: none"> <li>• Explain the concept of language.</li> <li>• List the characteristics of language.</li> </ul>	Lectures note  Textbooks  Charts	Demonstrate language skill. e.g. Speaking, listening, writing, reading.	Guide students on language skills.	Lectures note  Textbooks	Assignment  Class work

2.3 Explain the four language skills, viz, speaking, listening, writing, reading.	<ul style="list-style-type: none"> <li>• Explain the four language skills, viz, speaking, listening, writing, reading.</li> </ul>					Charts	
2.4 Explain the functions of language. List the uses of English	<ul style="list-style-type: none"> <li>• Explain the functions of language.</li> </ul>						
2.5 Language in Nigeria, e.g. as the language of research, government, commerce, etc.	<ul style="list-style-type: none"> <li>• List the uses of English Language in Nigeria, e.g. as the language of research, government, commerce, etc.</li> </ul>						

**GENERAL OBJECTIVE: 3.0 Understand the basic rules of grammar.**

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
<b>Grammatical Conventions</b> 3.1 Explain grammar 3.2 Explain parts of speech.	<ul style="list-style-type: none"> <li>• Explain grammar</li> <li>• Explain parts of speech.</li> </ul>	Lectures note Textbooks Charts	Identify parts of speech	Guide students to practice grammar	Lectures note Textbooks Charts	Quiz
3.3 Analyze the use of parts of speech in sentences. 3.4 Correct common errors in the use of parts of speech in sentences. 3.5 Construct sentences with correct syntactic arrangement.	<ul style="list-style-type: none"> <li>• Analyze the use of parts of speech in sentences.</li> <li>• Correct common errors in the use of parts of speech in sentences.</li> <li>• Construct sentences with correct syntactic arrangement.</li> </ul>	Lectures note Textbooks Charts	Explain to students usage of part of speech		Lectures note Textbooks Charts	Classwork
3.6 List punctuation marks. 3.7 Enumerate the uses of punctuation marks. 3.8 Punctuate a given passage. 3.9 Explain idioms	<ul style="list-style-type: none"> <li>• List punctuation marks.</li> <li>• Enumerate the uses of punctuation marks.</li> <li>• Punctuate a given passage.</li> <li>• Explain idioms</li> </ul>	Lectures note Textbooks Charts	Practice the use of punctuation marks		Lectures note Textbooks Charts	Assignment
3.10 Explain figures of speech. 3.11 Explain affixation. 3.12 Construct sentences to illustrate idioms, figures of speech and affixes.	<ul style="list-style-type: none"> <li>• Explain figures of speech.</li> <li>• Explain affixation.</li> <li>• Construct sentences to illustrate idioms, figures of speech and affixes.</li> </ul>					

**GENERAL OBJECTIVE: 4.0 Know the essential qualities of paragraphs.**

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<b>Paragraphing</b> 4.1 Define a paragraph 4.2 Name the parts of paragraph, viz., topic sentence, development, and conclusion/transition.	<ul style="list-style-type: none"> <li>Define a paragraph</li> <li>Name the parts of paragraph, viz., topic sentence, development, and conclusion/transition.</li> </ul>	Lectures note Textbooks  Charts	Practice paragraphing	Demonstrate the use of paragraphing	Lectures note Textbooks  Charts	Assignment
4.3 Explain the thematic qualities of a paragraph viz, unity, coherence and emphasis. 4.4 Explain methods of paragraph development, viz, example, definition, comparison and contrasts etc.	<ul style="list-style-type: none"> <li>Explain the thematic qualities of a paragraph viz, unity, coherence and emphasis.</li> <li>Explain methods of paragraph development, viz, example, definition, comparison and contrasts etc.</li> </ul>	•	Apply paragraphing in a text.			Assignment
4.5 Explain methods of ordering details in a paragraph viz, less complex to more complex and vice versa, less important to more important and vice versa, spatial, chronological, etc. 4.6 Write specific paragraphs to illustrate 4.2 to 4.5 above.	<ul style="list-style-type: none"> <li>Explain methods of ordering details in a paragraph viz, less complex to more complex and vice versa, less important to more important and vice versa, spatial, chronological, etc.</li> <li>Write specific paragraphs to illustrate 4.2 to 4.5 above.</li> </ul>	•				Assignment
<b>GENERAL OBJECTIVE: 5.0 Appreciate literacy works in English.</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<b>Literature in English</b> 5.1 Give the meaning of Literature. 5.2 Trace the development of literature.	<ul style="list-style-type: none"> <li>Give the meaning of Literature.</li> <li>Trace the development of literature.</li> </ul>	Novels	Group student in pairs of five or ten to study and present summary of literature	Guide students to read selected novels in public health		Assignment
5.3 Differentiate between the literary genres. 5.4 Explain the functions of literature.	<ul style="list-style-type: none"> <li>Differentiate between the literary genres.</li> <li>Explain the functions of literature.</li> </ul>					Classwork

5.5 Explain the terminology of prose fiction, e.g. plot setting, characterization etc.	<ul style="list-style-type: none"> <li>Explain the terminology of prose fiction, e.g. plot setting, characterization etc.</li> </ul>						Test
5.6 Answer an essay question on a given novel.	<ul style="list-style-type: none"> <li>Answer an essay question on a given novel.</li> </ul>						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Pharmacology and Therapeutics</b>						
<b>COURSE CODE: PHS 111</b>						
<b>DURATION:</b>	Lecture: - 30hours	Tutorial: Nil	Practical: - Nil	Total: 30 hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> The course is intended to enable students acquire foundation knowledge on pharmacology						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>Understand the meaning of pharmacology.</li> <li>Understand the meaning of clinical pharmacology.</li> <li>Recognize drugs categories, generic and trade names of drugs.</li> <li>Understand drugs and legislation and safety.</li> <li>Pharmaceutical agents in the control of microbial infections and health promotion.</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the meaning of pharmacology						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are expected to: 1.1 Define pharmacology 1.2 Identify the division of pharmacology 1.3 Describe the characteristics of properties of drugs 1.4 Mention some terminologies used in terminologies	Discuss the topics and present notes.	Textbooks Notes Lectures	Provide the definitions, divisions, characteristics as required.	Engage the students on the properties of drugs.	Internet Textbooks Notes Lectures	Test Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the origin of clinical pharmacology						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to: 2.1 Explain the origin of clinical pharmacology. 2.2 Explain the following terms; drugs firms route of administration, system and drug measurement, step in drugs circle. 2.3 Differentiate between pharmacology and toxicology.	Explain the topics with examples.	Textbooks Notes Lectures	Trace the origin of clinical pharmacology, difference between pharmacology and toxicology, other terminologies.	Moderate class participation to fit into time schedule.	Internet Textbooks Notes Lectures	Test Examination

<b>GENERAL OBJECTIVE: 3.0</b> Recognize drugs categories, generic names and their interaction with human body system						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to : 3.1 Identify and explain drugs categories, generic, trade names of drugs 3.2 Mention the therapeutic drugs actions and the rationale for using drugs to treat diseases 3.3 State reasons for the side, allergic and other effects of drug administration 3.4 Discuss drugs abuse, misuse and drugs tolerance	i. Use commonly available drugs to explain drug categorization, generic, trade names etc. ii. Describe the functions of drugs in the body.	Textbooks  Notes  Lectures	i. Categorize commonly available drugs. ii. Describe the rationale for using drugs to treat diseases. iii. Explain the reason for the side effects, allergic effects, etc.	Task students to read drug labels packets etc.	Internet Textbooks Notes Lectures	Test  Examination
<b>GENERAL OBJECTIVE: 4.0</b> Understand drugs legislation and safety						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to : 4.1 Define drugs legislation and safety 4.2 Identify and explain the agencies for the approval and use of drugs 4.3 List the requirements of approved drugs	Outline the drugs legislations, the regulatory agencies, and approval requirements.	Textbooks  Notes  Lectures	i. Enumerate drug regulations and agencies ii. Explain patent medicine, pharmacy, etc.	Guide the students practical	Internet Textbooks Notes Lectures	Test  Examination
<b>GENERAL OBJECTIVE: 5.0</b> Pharmaceutical agents in the control of microbial infections and health promotion						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 The meaning, history and the concept of pharmaceutical microbiology 5.2 Application of pharmaceutical microbiology in the control of infectious diseases 5.3 Concept of sterilization and dis-infection 5.4 The physical, chemical and biological methods of sterilization and disinfection 5.5 Principles of chemotrophic synthetics antimicrobials as used in the control of microbial growth 5.6 Antibiotics production by microorganisms 5.7 Methods of determination of potency, activity, efficacy, sensitivity, minimum inhibitory and cidal concentration of bacterial, antifungal, antiprotozoal, antivirus and anthelmintic drugs.	Discuss the topic and present notes to the students.	Textbooks Notes Lectures  Internet	i. Explain the meaning, history and concept of pharmaceutical microbiology, application in infectious disease control, sterilization.  ii. Ensure adequate coverage of the topic.	Guide the student activities.  Guide the students activities.	Internet Textbooks Notes Lectures	Test  Examination

5.8 The principles of drug toxicity evaluation LC50/LD50						
5.9 Evaluation of microbiological quality of pharmaceuticals						
5.10 The principles of chemotherapy of cancer.						
5.11 Concept of drug resistance as a menace to effective chemotherapy of infections.						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Computer Science</b>						
<b>COURSE CODE: COM 111</b>						
<b>DURATION:</b>	Lecture: -15hours	Tutorial: Nil	Practical: - 30hours	Total: 45hours		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> This course is designed to equip students with knowledge and skills to appreciate and use computer in daily life						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1. Explain the meaning of computer 2. Identify components of computer 3. Apply computer skills in daily life						
<b>GENERAL OBJECTIVE: 1.0</b> Explain the meaning of computer						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<b>Students are to:</b> 1.1 Define computer 1.2 State history of computer 1.3 Explain computer languages 1.4 Write simple program 1.5 List and explain the types of computer	Explain the topics and ensure complete coverage of the topics.	Computer Internet Lecture Note Textbooks	Provide the definition, history, languages, and types of computer.	Ensure that computers are accessible to students for the study.	Computer Internet Lecture Note Textbooks	Test  Examination
<b>GENERAL OBJECTIVE: 2.0</b> Identify the components of computer						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to : 2.1 Identify the components of computer and their function. 2.2 Explain the link between each component including multi-media functions.	Explain the functions of various components of computer.	Computer Internet Lecture Note Textbooks	Specify the functions of each components of the computer.	Task the students to identify the computer.	Computer Internet Lecture Note Textbooks	Test  Examination

<b>GENERAL OBJECTIVE: 3.0</b> Apply computer skills in everyday life.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 State the various uses of a computer 3.2 Apply computer skills in epidemiology 3.3 Apply computer basic programming for word processing. e.g. MS word, Excel, Power point etc. 3.4 Apply computer in electronic data management (use of internet, research e-government, SPSS, mini-tab, etc.	Task students to outline the uses of computer, e.g. Ms word, Excel, Power point	Computer  Internet  Lecture Note  Textbooks	Operate the computer and produce some Ms word, Excel and Power points work	Guide the students computer practice	Computer  Internet  Lecture Note  Textbooks	Test  Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Immunology and Immunization</b>						
<b>COURSE CODE: PHT 112</b>						
<b>DURATION:</b>	Lecture: - 30hours	Tutorial: Nil	Practical: - 15hours	Total: 45hours		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> This course is designed to equip the students with the understanding of the role of immunization in public health.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
Specific Objectives: 1. Explain the meaning of immunity, immunization and immunology. 2. Understand the general nature of immune system. 3. Understand antigen-antibody and allergic reaction. 4. Understand the significance of immunology, immunization and public health.						
<b>GENERAL OBJECTIVE: 1.0</b> Explain the meaning of immunity, immunization and immunology.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to: 1.1 Define the following terms; i. Immunity ii. Immunization iii. Immunology iv. Herd Immunity 1.2 Describe method of acquiring immunity and factors affecting resistance to diseases.	i. Teacher will expose students on how to conduct inoculation. ii. Teach the students on the concept of Immunity and Immunization.	Textbooks  Models  Lecture note	i. Differentiate between immunity, immunization, immunology ii. Explain herd immunity Outline factors that improve / suppress one's immunity	Teacher will expose students on how to conduct inoculation	Textbooks  Models  Lecture note	Test  Examination

<b>GENERAL OBJECTIVE: 2.0.</b> Understand the general nature of immune system.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students will be expected to: 2.1 Understand the early concerns of immunology and public health. 2.2 Explain the terms antigen, antibody and other components of the immune system. 2.3 Explain the structure and synthesis of antibodies. 2.4 Explain the terms natural and artificial immunity.	i. Present lectures on early concerns of immunology and public Health. ii. Trace the impacts of some discoveries in immunology. iii. Analyse antigen-antibody interaction.	Textbooks Models Cold box, Vaccine vial monitors, immunization cards, charts	i. Identify the innovations, concerns etc of immunology and public health. ii. Explain natural and artificial immunity etc	Textbooks Models Cold box, Vaccine vial monitors, immunization cards, charts	Textbooks Models Lecture note	Test  Examination
<b>GENERAL OBJECTIVE: 3.0.</b> Understand antigen-antibody and allergic reaction.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Explain the various antigen-antibody reactions. 3.2 Explain the various types of hypersensitivity (delayed, immediate, etc.) and allergic reactions. 3.3 Describe the factors affecting antigen-antibody reactions. 3.4 Explain the ABO blood group 3.5 Explain the rhesus factor and rhesus incompatibilities.	i. Analyse antigen-antibody reactions ii. Identify various types of hypersensitivity iii. State the factors affecting antigen-antibody reaction iv. Explain the compatibility factor in blood grouping	Textbooks Models Cold box, Vaccine vial monitors, immunization cards, charts	i. Explain the outcome of antigen-antibody reactions, ii. Demonstrate the health implication of allergic reactions, delayed and immediate hypersensitivity reactions iii. Draw the sketch of blood grouping compatibility iv. Demonstrate agglutination, precipitation, etc.	i. Guide the students through discussions ii. Moderate the practical demonstration	Textbooks Models Lecture note	Test  Examination
<b>GENERAL OBJECTIVE: 4.0</b> Understand the significance of immunology, immunization in public health						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Explain the mechanism of resistance of infection. 4.2 Explain the relationship of infection to immunity.	Teacher to engage students on immunization	Immunization work plan.  Charts	Demonstrate how to administer vaccines. (Intramuscular (IM),	Teacher to engage students on immunization	Immunization work plan.  Charts	Test  Examination

4.3 Explain the interaction of drugs to immune system.	activities during campaigns e.g.	Vaccination cards	Subcutaneous and Intravenous (IV))	activities during campaigns.	Vaccination cards	Oral presentation
4.4 List common communicable diseases in Nigeria. e.g. Cholera, HIV/AIDS, Ebola, Lassa fever, etc.	i. Planning					
4.5 Explain the immune measures against the diseases in 4.4 above.	ii. Awareness					
4.6 Distinguish between epidemics, endemics, and pandemics, etc.	iii. Mobilization					
4.7 Describe immunization campaign, planning and publicity.	iv. Vaccination					
4.8 Describe immunization assessment and surveillance.	v. Documentation					
4.9 Describe immunization schedule in Nigeria	vi. Report writing					
4.10 Organize immunization sessions						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>				
<b>COURSE TITLE: General Laboratory Technique</b>				
<b>COURSE CODE: GLT 111</b>				
<b>DURATION:</b>	Lecture: - 15hours	Tutorial: Nil	Practical: - 30hours	Total: 45hours
<b>CREDIT UNITS: 3</b>				
<b>GOAL:</b> The course is intended to acquaint the students with the basic knowledge of laboratory wares, equipment, use and procedures in public health practice				
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:				
<ol style="list-style-type: none"> <li>1. Describe the use of laboratory wares and simple laboratory equipment</li> <li>2. Explain the calibration on glass wares</li> <li>3. Identify the various uses of glass wares</li> <li>4. Enumerate the principles, applications and maintenance of microscopes</li> <li>5. State the maintenance of heating apparatuses in the laboratory</li> <li>6. Explain the maintenance of cooling equipment</li> <li>7. State the maintenance of temperature measurement</li> <li>8. Explain the microtome and the maintenance of microtome tools</li> <li>9. Identify basic electrical appliances</li> <li>10. Discuss the care and maintenance of audio-visual aids</li> </ol>				

<b>GENERAL OBJECTIVE: 1.0</b> Describe the use of laboratory wares and simple laboratory equipment						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students are to: 1.1 Identify the different type of laboratory glass wares e.g. beakers, test tube, funnels, flaks (different types) etc. 1.2 State the uses of different laboratory wares in 1.1 1.3 Identify different types of fittings in the laboratory e.g. for water, gas, light 1.4 Identify the different types of greases and their application on the joints 1.5 Prepare cleaning reagents for laboratory wares 1.6 Explain the uses of parcel in centered glass, nickel, and platinum crucibles 1.7 Clean laboratory wares using cleansing agents 1.8 Store and maintain laboratory wares	•	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book		i. Guide the students laboratory activities  ii. Ensure availability of required instrument and reagents.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Explain the calibration on glass wares						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Define calibration 2.2 Distinguish between calibration and graduation 2.3 Explain the effect of heat on calibration laboratory glass wares 2.4 Read fluid level of calibrated glass wares e.g. water level, mercury level 2.5 Graduate simple laboratory glassware, using standard volumes	i. Explain the technique	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Guide in practice of the technique	Monitor compliance with procedure	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0</b> Identify the various uses of glass wares						

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Identify types of glass ware suitable for storage in the laboratory 3.2 Identify types of glass wares suitable for containers e.g. for storage of photosensitive reagents and some acids 3.3 Identify other laboratory storage container e.g. plastics and ceramics 3.4 State the precautions necessary in the storage of chemicals e.g. Hydrofluoric an in plastic containers e.g. sodium metal in paraffin and silver nitrate in amber containers on a balance.	i. Explain the procedures.  ii. Narrate the safety issues to be looked after.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	i. Moderate the practical activities.  ii. Monitor the result.		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 4.0 Enumerate the principles, applications and maintenance of microscopes</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Identify a simple microscope and its parts 4.2 List the various types of microscopes in use in the laboratory 4.3 Describe the use of various microscopes in 2.2 above 4.4 State the range of magnification of microscope 4.5 Outline the principles of operation of various types of microscope 4.6 Describe and apply the various procedures in the routine maintenance and minor repair of microscope		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book			Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 5.0 State the maintenance of heating apparatuses in the laboratory</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Identify the various heating apparatus like burners, hot plate, autoclaves etc. 5.2 Describe the application of each type in 3.1 above		Bulletins Charts Internet/Intranet Journals			Bulletins Charts Internet/Intranet Journals	Continuous assessment Practical Assignment

5.3 Heat water and the liquids, powder etc using Bunsen burner, hot plate etc. 5.4 Sterilize various object using autoclave 5.5 Heat various objects using oven 5.6 Describe and apply the various procedures in the routine maintenance and / minor repair of autoclave, ovens and other laboratory heating apparatuses		Lecture notes Pictorials Projector Text book			Lecture notes Pictorials Projector Text book	Examination
<b>GENERAL OBJECTIVE: 6.0</b> Explain the maintenance of cooling equipment						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Identify apparatus for cooling e.g. refrigerator freeze driver, water circulators 6.2 Explain the principle of freezing 6.3 Explain the different application of cooling system in 7.1 below 6.4 Identify the various part of apparatuses in 4.1 above 6.5 Describe and apply the procedure for the routine maintenance and minor repair of the apparatus in 4.1 above		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book			Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous Assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 7.0</b> State the maintenance of temperature measurement						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
7.1 Identify apparatus for temperature measurement e.g. thermometer; pyrometer thermometer 7.2 Explain the operating principle of temperature measuring devices listed in 7.1 above 7.3 Distinguish between the various temperature scale e.g. Fahrenheit, Kelvin Celsius etc. 7.4 Measure temperature using scale in 7.3 above		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book			Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

7.5 Describe and apply the procedure for the routine maintenance and minor repair of the apparatus identified in 7.1 above						
<b>GENERAL OBJECTIVE: 8.0</b> Explain the microtome and the maintenance of microtome tools						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
8.1 Identify different types of microtome 8.2 Identify the different parts of microtome and explain their functions 8.3 Explain the working principles of microtome 8.4 Identify types of knives used in the microtome 8.5 Sharpen microtome knives 8.6 Describe paraffin wax embedded tissue 8.7 Cut section 8.8 Identify faults in section cutting and remedy the fault 8.9 Explain the care of microtome and knives		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book			Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 9.0</b> Identify basic electrical appliances						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
9.1 Explain the following terms AC and DC supplies LT and HT 9.2 Identify various types of distribution and connection 9.3 Identify the result of wrong wiring 9.4 Identify the different types of wiring 9.5 Explain the method and importance of proper carting 9.6 Identify different types of switches e.g. SPDT, DPST control gear relays cut outs etc. 9.7 Identify different types of protective wiring devices e.g. relays cut outs, fuses etc. 9.8 Draw the various electrical symbols 9.9 Apply such symbols in 10.9 below for circuit diagrams		Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book			Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>GENERAL OBJECTIVE: 10.0</b> Discuss the care and maintenance of audio-visual aids						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
10.1 Describe the methods and undertake proper care and routine maintenance (1) overhead projectors (2) lenses, recording and playback heads		Bulletins Charts Internet/Intranet Journals			Bulletins Charts Internet/Intranet Journals	Continuous assessment Practical Assignment Examination
10.2 Describe the precautionary measures involved in the handling of projectors, tape recorders etc.		Lecture notes Pictorials Projector			Lecture notes Pictorials Projector	
10.3 Mend tapes and films.		Text book			Text book	

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Anatomy and Physiology</b>						
<b>COURSE CODE: DTH 115</b>						
<b>DURATION:</b>	Lecture: - 30hours	Tutorial: Nil	Practical: - 15hours	Total: 45 hours		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The rationale of the course is to acquaint the students with the basic knowledge of the structure and functions of the human body.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1. Understand the structure of human body 2. Understand the human cell structure and its function 3. Know the different types of human tissues and their function. 4. Understand the different systems of the body, their structures and function 5. Know the body fluids, electrolytes and acid, base balance 6. Understand the homeostatic mechanism of the body						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the structure of human body						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to: 1.1 Explain the following terms associated with anatomical description; anterior; posterior; median; lateral; superior; inferior; planter; palmar; proximal; distal; internal, external, prone, supine, coronal	Lecture  Discussion	Textbooks Lecture notes Anatomical Models Charts	Explain the terms in relations to each other	Explain with the aid of models.	Textbooks Lecture notes Anatomical Models Charts	Test  Examination

1.2 List the terms associated with the body movement: Extension, flexion, abduction, pronation, supination, protrusion, intrusion, rotation, circumduction, protraction, retraction						
1.3 Describe the external parts of the human body						
1.4 Describe the human body curvatures						
<b>GENERAL OBJECTIVE: 2.0</b> Understand the human cell structure and its function						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to: 2.1 Describe the human cell 2.2 Draw a well labeled diagram of the cell and its components (constituent) 2.3 Describe the different components of the cell 2.4 Explain the functions of the components of the cell 2.5 Identify a typical human cell under the microscope	Teacher to teach students the type of Microscope and how to use them.  Teacher to teach students how to view a typical cell on a microscope	Textbooks  Lecture notes  Anatomical Models	Describe the human cells and explain the functions	Use Model to make explanations	Textbooks  Lecture notes  Anatomical Models	Test  Examination
<b>GENERAL OBJECTIVE: 3.0</b> Know the different types of human tissues and their function						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Students to: 3.1 Define tissue 3.2 Describe the types of tissue; epithelial, connective, nervous and muscular tissues. 3.3 Identify each of the tissue mentioned in 3.1 above 3.4 Draw and label the types of tissues in 3.2 above 3.5 Identify the locations of tissue sin the human body 3.6 Classify each of the four major types of tissues	-Lectures  -Discussion	Textbooks  Lecture notes  Anatomical Models	Describe the functions of tissues, locations etc.	Guide students activities	Textbooks Lecture notes Anatomical Models	Test  Examination

<p>3.7 State the components of blood, namely; cells and plasma.</p> <p>3.8 List types of blood cells; red blood cells white blood cells and platelets.</p> <p>3.9 List the component of plasma – protein (globulin, albumin); fibrinogen, salts (electrolytes); urea, glucose, water and other substances such as prothrombin, vitamin and enzymes.</p> <p>3.10 List the functions of the different types of tissue.</p> <p>3.11 State the functions of the different types of tissues</p> <p>3.12 List calcified tissues of the body.</p> <p>3.13 Define the functions of calcified tissues of the body</p>						
<b>GENERAL OBJECTIVE: 4.0</b> Understand the different systems of the body, their structures and function						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>4.1 Define the systems of the body</p> <p>4.2 Enumerate the different systems of the body e.g. skeletal, muscular, nervous, digestive, respiratory etc.</p> <p>4.3 Identify the two major groups of bones of the skeletal system axial and appendicular</p> <p>4.4 Identify the major bones in each group</p> <p>4.5 State the functions of the skeletal system</p> <p>4.6 Draw and label the main bones of the skeletal system</p> <p>4.7 Identify the different types of joints in the skeletal system</p> <p>4.8 List examples of the different types of joints in the skeletal system</p>	<p>Teacher should use the skeleton to teach students about the types of bone in human anatomy.</p>	<p>Textbooks</p> <p>Lecture notes</p> <p>Anatomical Models</p>	<p>Define and explain the functions of various systems of the body.</p>	<p>Use models and posterto demonstrate the functions of the systems</p>	<p>Textbooks</p> <p>Lecture notes</p> <p>Anatomical Models</p>	<p>Test</p> <p>Examination</p>

<p>4.9 Draw and label the major joints in the skeletal system</p> <p>4.10 List the different types of muscles that make up the Muscular system</p> <p>4.11 Draw and label different types muscles in 4.10 above</p> <p>4.12 State the structure differences in the muscles in 4.10 above</p> <p>4.14 State the functions of the different types of muscles in 4.10 above.</p> <p>4.15 Identify the following group of muscles;</p> <ul style="list-style-type: none"> <li>- Muscles of facial expression</li> <li>- Muscles of facial mastication</li> <li>- Muscles that serve the head</li> <li>- Muscles that serve the chest</li> <li>- Muscles that serve the arms</li> <li>- Muscles that serve the limb, etc.</li> </ul> <p><b>Cardiovascular System</b></p> <p>4.16 List the composition of the cardiovascular system.</p> <p>4.17 Draw and label the major components of heart</p> <p><b>Respiratory System</b></p> <p>4.19 List the composition of the respiratory system</p> <p>4.20 Draw and the label component of the respiratory system</p> <p>4.21 Describe the mechanism of respiration</p> <p><b>Digestive System</b></p> <p>4.22 Describe the digestive system</p> <p>4.23 List the composition of the digestive system</p> <p>4.24 Draw and label the major components of the digestive system</p> <p>4.25 Describe the process of food digestion</p>						
---	--	--	--	--	--	--

<b>GENERAL OBJECTIVE: 5.0</b> Know the body fluids, electrolytes and acid, base balance						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Explain body fluid 5.2 State the locations of body fluid. 5.3 Define the following; acid, base, electrolytes, acid-base balance. 5.4 List examples of each of 4.3 above 5.5 Describe the different composition of body fluid 5.6 List the electrolyte composition of body fluid 5.7 Explain the functions of each of 5.3 above 5.8 Explain the hormonal control of body fluid	-Lecture  -Discussion	Textbooks  Lecture notes  Anatomical Models	Explain electrolyte balance in the body etc.	Teacher to demonstrate to students on how to use the litmus paper in acid-base balance test	Textbooks Lecture notes Anatomical Models	Test  Examination
<b>GENERAL OBJECTIVE: 6.0</b> Understand the homeostatic mechanism of the body						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Define homeostasis 6.2 Explain the maintenance of the internal homeostasis.	Lecture  Discussion	Textbooks Lecture notes Anatomical Models	Describe body homeostasis.	Task Students on Classwork.	Textbooks Lecture notes Anatomical Models	Test  Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Citizenship Education</b>						
<b>COURSE CODE: GNS 127</b>						
<b>DURATION:</b>	Lecture: - 30hours	Tutorial: Nil	Practical: - Nil	Total: 30 hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to expose the student to the basic concepts, principles and provisions of the Nigerian Constitution						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1 Understand the constitution of Nigeria.</li> <li>2 Understand the federal system of government in Nigeria</li> <li>3 Know the constitutional rights and obligations of Nigerian citizens.</li> <li>4 Understand citizenship.</li> <li>5 Know the fundamental objectives and directive principles of state policy of Nigeria.</li> </ol>						

<b>GENERAL OBJECTIVE: 1.0</b> Understand the constitution of Nigeria.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Explain the term constitution. 1.2 Distinguish the different types of constitutions. 1.3 Highlight some provisions of an international constitution. 1.4 Assess the effectiveness of international constitutions. 1.5 Recognize the supremacy of the Nigerian constitution to other laws with emphasis on the 1999 constitution. 1.6 Evaluate the main parts of the Nigerian constitution. 1.7 Draft a constitution for an association. 1.8 Trace the historical development of the Nigerian constitution. 1.9 Discuss the merits and demerits of each of the Nigerian constitutions. 1.10 Explain the concept of “rule of law”	Discuss the topics and make references to some sections of the constitution.	Lecture notes  Textbooks  Nigeria Constitution.	i. Define the terms associated with constitution. ii. Identify different types of constitution. iii. Cite some provisions of international constitution. iv. Explain the supremacy of Nigeria constitution v. List the features of a constitution. vi. Identify the merits and demerits of Nigeria constitution.	Guide students to develop a draft of association’s constitution.	-Lecture notes  -Textbooks  - Nigeria Constitution  -Association’s Constitution .	Test  Examination  Group Presentation  Class work
<b>GENERAL OBJECTIVE: 2.0:</b> Understand the federal system of government in Nigeria						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Describe a Federation 2.2 Distinguish a federation from a confederation 2.3 Outline the basis for the federal system in Nigeria. 2.4 Examine the evolution, structure and functions of the federal system in Nigeria.	Discuss the topics and give notes	Lecture notes  Textbooks  Constitution of Nigeria	i. Point out the difference between federation and confederation.  ii. Narrate the evolution, the structure and functions of the	Engage students in interactions on the topics.	-Lecture notes  -Textbooks  -Constitution	Assignment

2.5 Analyse the relationships among the three tiers of government in Nigeria			federal system in Nigeria.			
2.6 Evaluate the revenue allocation formula in operation in Nigeria.						
2.7 Compare and contrast other Federations with Nigeria.						
<b>GENERAL OBJECTIVE: 3.0</b> : Know the constitutional rights and obligations of Nigerian citizens						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Examine the significance of rights and obligations in Nigeria.	Discuss the fundamental rights as contained in the Nigeria Constitution.	Lecture notes Textbooks	Explain the significance of protection of fundamental human right.	Engage students in interactions on the topic.	Lecture notes	Test
3.2 Access government's protection of fundamental rights as contained in the Nigeria Constitution.		Constitution of Nigeria			-Textbooks	Examination
					-Constitution	Assignment
<b>GENERAL OBJECTIVE: 4.0</b> : Understand citizenship						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
a. Discuss the significance of citizenship.	i. Highlight the significance, principles and benefits of citizenship. ii. Outline the different ways of obtaining citizenship, merits and demerits, acquisition and withdrawal procedures.	-Lecture notes	i. Explain the significance of citizenship. ii. Analyse the principles and benefits of citizenship. iii. Express the differences in modes of acquiring citizenship. iv. Learn the processes of acquisition and withdrawal of citizenship, merit and demerits.		-Lecture notes	Test
b. Analyse the principles and benefits of citizenship.		-Textbooks			-Textbooks	Examination
c. Explain the differences in the modes of acquiring citizenship.		-Nigeria Constitution			-Journals	
d. Evaluate the merits and demerits of each type of citizenships,		-Association Constitution			-Nigeria Constitution (1999) as amended	
e. Analyse the basis for the acquisition and /or withdrawal of Nigerian citizenship.						
f. Examine the benefits derivable from Nigerian citizenship.						
<b>GENERAL OBJECTIVE: 5.0</b> : Know the fundamental objectives and directive principles of state policy of Nigeria						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 State the fundamental obligations of government as provided in the constitution.	Present lecture on the topics and make notes	-Lecture notes -Textbooks	i. Identify the fundamental obligations of	Guide students to make contribution	-Lecture notes -Textbooks	Test Examination

5.2 Explain the general provisions of the fundamental objectives and directive principles of state policy.	available to the students.	-Nigeria Constitution  -Association Constitution	government, general, provision, directive principles, policies on culture, mass media, national ethics and duties of the citizens etc.	during class session.	-Journals  -Nigeria Constitution (1999) as amended	Assignment
5.3 Explain the political, economic, social and education policies of Nigeria.						
5.4 Explain the directive principles and policy of the Nigerian government on culture, the mass media, national ethics and duties of the citizen.						
5.5 Assess the conformity, observance and application of the fundamental objectives and directive principles of state policy by governments and people of Nigeria.						
5.6 Recommend improvements on the provisions, conformity, observance and application of the fundamental objectives and directive principles of state policy.						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>				
<b>COURSE TITLE: INTRODUCTION TO MEDICAL SOCIOLOGY</b>				
<b>COURSE CODE: GNS 213</b>				
<b>DURATION:</b>	Lecture: - 30 HOURS	Tutorial: NIL	Practical: -	Total: 30 HOURS
<b>CREDIT UNITS: 2</b>				
<b>GOAL:</b> This course is designed to introduce students to the general concept of sociology in health care delivery system				
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:				
1.0. Define sociological concepts e.g sociology, socialization, family, population etc				
2.0. Explain the social and cultural aspect of medicine and epidemiology.				
3.0. Explain how family/society respond to illness.				
4.0. Explain the relationship between societal class and illness.				
5.0. Describe the contemporary nature of the practice of traditional and modern medicine.				
6.0. Explain causes and effect of mental disorder.				
7.0. Explain how to care for vulnerable groups in the society (aged, destitute, handicapped e.t.c).				
8.0. Explain the present socio-cultural medical problems in Nigeria today.				

<b>GENERAL OBJECTIVE: 1.0 Define sociological concepts</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1. Define sociology 1.2. Explain Socialization 1.3. Define Family unit 1.4. Explain population 1.5. Define Community structure etc	<ul style="list-style-type: none"> <li>Teachers should define sociology</li> <li>Teachers should explain the concept of socialization</li> <li>Teachers should define the terms family, population, community etc</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Non applicable	Non applicable	Non applicable	Test Examination
<b>GENERAL OBJECTIVE: 2.0 Explain the socio- cultural aspects of epidemiology</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Sociology, medicine and epidemiology 2.1 Explain the nature and scope of medical sociology 2.2 Define social epidemiology, culture, social health and social determinations of health 2.3 Explain the concept of “health” and “ill health”, health and behavior and factors affecting behavior 2.4 Analyze the social-cultural implication of ill – health	<ul style="list-style-type: none"> <li>Teachers should explain the nature and scope of medical sociology</li> <li>Teachers should define the following terms: social epidemiology, culture, social health.</li> <li>Teachers should explain the concept of health and ill health; health and behavior.</li> <li>Teachers should explain the social determinants of health</li> <li>Teachers should explain the factors affecting behavior</li> <li>Teachers should analyze the social-cultural implication of ill-health</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Non applicable	Non applicable	Non applicable	Test Examination
<b>GENERAL OBJECTIVE: 3.0 Explain the causes and ways family/society respond to illness</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Social response to common tropical diseases 3.1 Identify the causes of the following tropical diseases e.g. bilharzias,	Teachers should state the causes of the following diseases: bilharzias, chronic malaria, sleeping	Projector Text book Internet Lecture notes				Test Examination

chronic malaria, sleeping sickness, river blindness, poliomyelitis, sickle cell anemia, conjunctivitis, worm infestation, kwashiorkor, hepatitis, cardiovascular diseases, diabetes, hypertension, mental illness 3.2 Justify family/societal response to each of the diseases stated in 2.1 above	sickness, river blindness, poliomyelitis, sickle cell anemia, conjunctivitis, worm infestation, kwashiorkor, hepatitis, cardiovascular diseases, diabetes, hypertension, mental illness.	Charts Pictures Tutorials				
<b>GENERAL OBJECTIVE: 4.0</b> Explain the relationship between societal class and illness						
<b>Specific Learning Objectives(Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Classify diseases relationships 4.1. Categorize diseases into diseases of the affluent and diseases of poverty e.g. hypertension, cardiovascular diseases, diabetes, stroke, obesity, kwashiorkor, kidney diseases etc. 4.2. Explain the relationships between social class and the diseases in 3.1 above	<ul style="list-style-type: none"> <li>Teachers should categorize diseases into diseases of affluence and poverty with examples in each case</li> <li>Teachers should explain the relationship between social class and diseases</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials				Test Examination
<b>GENERAL OBJECTIVE: 5.0</b> Describe the contemporary nature of the practice of traditional and modern medicine						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Modern and traditional health care delivery 5.1. Describe the socio- cultural setting of modern health institutions 5.2. Describe the characteristics unique to traditional health institutions 5.3. Explain the health implication of traditional medicine to the health delivery system	<ul style="list-style-type: none"> <li>Teachers should describe the socio-cultural setting of modern and traditional health institutions and their characteristics</li> <li>Teachers should explain health implication of traditional medicine to the health delivery system</li> <li>Teachers should guide the students in determining</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials				Test Examination

5.4. Describe the best method of health care delivery using modern hospitals, health centers, dispensaries as points of references	the best method of health care delivery.					
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Psychiatric health care 6.1. Define mental health and mental illness 6.2. Differentiate between psychosis and Neurosis 6.3. Describe the organization of psychiatric hospital 6.4. Examine the development of Neuromental hospitals in Nigeria 6.5. Explain the advantages and disadvantages of the psychiatric hospitals 6.6. List causes of mental illness 6.7. Analyze the social response to mental illness in Nigeria 6.8. State the measures for promoting mental health in Nigeria	<ul style="list-style-type: none"> <li>Teachers should differentiate between mental health and mental illness; psychosis and neurosis.</li> <li>Teachers should describe organization of psychiatric/neuromental hospitals and their development in Nigeria.</li> <li>Teachers should explain the advantages and disadvantages of the psychiatric hospitals</li> <li>Teachers should list causes of mental illness and analyze the social response to mental illness in Nigeria</li> <li>Teachers should state the measures for promoting mental health in Nigeria.</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials				Test Examination
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Care for the vulnerable groups 7.1. Explain the term vulnerability 7.2. Define different vulnerable groups 7.3. List and explain the physical, mental, social and psychological needs for vulnerable groups 7.4. Examine the health needs of vulnerable groups	<ul style="list-style-type: none"> <li>Teachers should explain the term vulnerability</li> <li>Teachers should state the different vulnerable groups</li> <li>Teachers should explain the various needs of the vulnerable groups</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials				Test Examination

7.5. State how to conditioned the physical and social environment to meet the needs of vulnerable groups	<ul style="list-style-type: none"> <li>• Teachers should discuss the health needs of the vulnerable groups</li> <li>• Teachers should explain the conditioning of physical social environment for vulnerable groups</li> </ul>					
<b>Specific Learning Objectives(Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Public health care problems of the country 8.1. Describe the present health pattern in Nigeria utilizing current WHO reports, bulletins, journals and newspapers. 8.2. Analyze the current health problems and their solutions as per current available sources 8.3. Identify social agencies and their contribution to health e.g. Red cross, Nigeria Social Insurance Trust Fund (NSITF), Civil Society Organization (CSO)	<ul style="list-style-type: none"> <li>• Teachers should describe the present health pattern in Nigeria and analyze the associated health problems and their solutions.</li> <li>• Teachers should state the social agencies in Health in Nigeria</li> </ul>	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Preparation of term papers on: Evaluation of health services in selected communities in the country Evaluation of the role of social agencies in the development and promotion of health care in Nigeria	Organize the students into groups for the term papers	Projector Text book Internet Lecture notes Charts Pictures Tutorials Seminar	Test Examination Assessment of Seminar presentation

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>				
<b>COURSE TITLE: INTRODUCTION TO HEALTH EDUCATION AND PROMOTION</b>				
<b>COURSE CODE: PHT 121</b>				
<b>DURATION:</b>	Lecture: - 30 Hour	Tutorial: Nil	Practical: - 15hour	Total: 45Hours
<b>CREDIT UNITS: 3</b>				
<b>GOAL:</b> This course is designed to enable students acquire knowledge and skills on how to help communities appreciate the needs for the practice of healthy living.				
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:				
<ol style="list-style-type: none"> <li>1. Understand the basic concepts of Health Education and promotion</li> <li>2. Understand the importance of adequate planning in the implementation of effective health education and promotion</li> <li>3. Understand the elements of good communication in Public Health</li> <li>4. Identify the various audio-visual aids used in health education and promotion and how to prepare them</li> </ol>				

5. Understand the preparation of teaching/health talk for the various groups of clients in the community.						
6. Identify the strategies for effective health education in the community						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the basic concepts of Health Education						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	
1.1 Outline the history of health education and promotion in development and developed countries 1.2 Outline the scope of health education and promotion 1.3 Explain the principle of health education and promotion 1.4 List various methods of health education and promotion	Lectures  Discussion	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate health talk presentations.	Guide students to prepare and present a health talk to a hypothetical Community.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	
<b>GENERAL OBJECTIVE: 2.0</b> Understand the importance of adequate planning in the implementation of effective health promotion						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 List the key point to be considered in planning of an effective health education and promotion program 2.2 Describe the barrier to effective health education and promotion e.g. language barrier etc. 2.3 Plan health education and promotion program for a given situation.	Lectures  Discussion	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Carry out planning activity for health education and promotion.	Task the students to observe barriers to effective health education and promotion.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0</b> Understand the element of good communication						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	
3.1 Define communication 3.2 Identify the component of communication process 3.3 List the various types of communication 3.4 Describe various methods of communication	Lectures  Discussion on the elements of good communication, components , methods etc.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector	i. Define communication, outline the component ii. Describe the types, methods	Task the students on good communication skills.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector	

4.5 Identify barriers to good communication		Text book	and barriers to communication.		Text book
---	--	-----------	--------------------------------	--	-----------

**GENERAL OBJECTIVE: 4.0** Identify the various audio-visual aids used in health education and how to prepare them

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources
4.1 Define audio-visual aids 4.2 Describe various types of audio-visual aids used in health education and promotion. 4.3 Identify various audio-visual aids e.g. overhead projectors etc 4.4 Execute a health education plan using all necessary audio-visual aids 4.5 Develop a typical visual aid that can be used to teach a group of clients.	Explanation Discussion	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate the various audio-visual aids used in health education and promotion.	Student to be guided on how to develop an Audio-visual aid used in health education and promotion. Teacher to demonstrate for the students on how to develop Audio-visual aids used in health education and promotion.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book

**GENERAL OBJECTIVE: 5.0** Understand the steps/process of health talk for the various groups of clients in the community

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
5.1 Develop a plan for talk for various groups of clients 5.2 Conduct micro-teaching 5.3 Evaluate the effective health education and promotion	Teacher to supervise students role play and plan health talk.	-Lecture notes -Textbooks -Charts -Models -Role Play -Jingles -Questionnaires	Demonstrate role play and health talk planning	Teacher to supervise students role play and plan health talk.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE: 6.0** Identify strategies for effective health education and promotion in the community.

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources
---------------------------------------	---------------------	--------------------	---	---------------------	--------------------

6.1 List various strategies for effective health education and promotion.	Teaching students how to develop various strategies for teaching community member by teacher.	-Lecture notes -Textbooks -Charts -Models -Role Play -Jingles -Questionnaires	State various strategies for effective health education and promotion.	Teaching students how to develop various strategies for teaching community member by teacher.	Lecture notes Textbooks Charts Models Role Play Jingles Questionnaires
---	---	---	--	---	--

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: APPLIED CHEMISTRY</b>						
<b>COURSE CODE: GNS112</b>						
<b>DURATION:</b>	Lecture: - 30	Tutorial:	Practical: - 15	Total: 45 HRS		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> This course is designed to provide the students with basic knowledge of chemistry and its application in Public Health Practice						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the concepts and the principles of Chemistry and its importance to Public Health Practice.						
2.0 Understand the nature of matter.						
3.0 Know acids, bases, salts and their characteristics.						
4.0 Understand electrolytes/electrolysis.						
5.0 Understand the application of knowledge of carbon and hydrocarbon compounds to Public Health practice.						
6.0 Know the classification and structure of organic and inorganic compounds and their application on Public Health <i>practice</i> .						
7.0 Understand atomic structure and nuclear energy.						
<b>GENERAL OBJECTIVE: 1.0 Understand the concepts, principles of chemistry and its importance to Environmental Health</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Science, Chemistry 1.2 List branches of chemistry and their relevance to public health practice 1.3 Explain the nature and importance of chemistry to public health practice.	Teacher should explain chemistry, branches and relevance to public health.	Text books White Board Marker Multimedia projector/Laptops	Student should explain chemistry, branches and relevance to public health.	Teacher to guide and provide support to the students.	Projector Video/Audio devices Models	Assignment  Test  Examination
<b>GENERAL OBJECTIVE: 2.0 Understand Nature of Matter</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

<p>2.1 Describe physical and chemical properties of matter</p> <p>2.2 Describe physical and chemical changes in the body.</p> <p>2.3 Explain the chemical symbols of elements.</p> <p>2.4 Describe classification of elements, compounds and mixtures.</p> <p>2.5 Discuss particulate nature of matter:</p> <ul style="list-style-type: none"> <li>- Atoms</li> <li>- Molecules</li> <li>- Ions</li> </ul> <p>2.6 Explain structure and chemical combinations</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Charts</li> <li>• White Board/Marker</li> <li>• Packages containing materials on nature of matter</li> <li>• Textbooks</li> <li>• Multimedia projectors</li> <li>• Computers.</li> </ul>	<p>2.1 Demonstrate Physical and chemical change using substances like water and air</p> <p>2.4 Demonstrate separation of mixtures e.g. blood, air and their application</p> <p>2.5 Use simple formulae and equations</p> <p>2.6 Apply symbols, formulae of elements and components</p>	<p>Demonstrate and assist students perform activities on 2.1, 2.4 2.5 2.6</p>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Bunsen burner</li> <li>• Flask</li> <li>• Whole blood</li> <li>• Air</li> <li>• Spinning machine</li> <li>• Test tube</li> <li>• Centrifuge</li> <li>• Acid compound</li> <li>• Base compound</li> <li>• Litmus papers</li> </ul>	<p>Assignment Test Examination</p>
---	---	---	--	---	---	------------------------------------

**GENERAL OBJECTIVE: 3.0 Know acids, bases, salts and their characteristics**

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
<p>3.1 Define the following: acids, bases and salts</p> <p>3.2 Discuss properties and uses of acids, bases and salts.</p> <p>3.3 Discuss types of salts and their uses.</p> <p>3.4 Describe:- efflorescent, deliquescent</p> <p>3.5 List examples of properties of metals and non- metals.</p> <p>3.6 Discuss hydrolysis of salts.</p> <p>3.7 Discuss titration acid and base</p> <p>3.8 Discuss simple volumetric analysis</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Samples of compounds i.e. Acids Base, Salts etc.</li> <li>• Acid</li> <li>• Base</li> <li>• Pipettes/ Beakers</li> </ul>	<p>3.2 Measure the acidity and alkalinity of acid and base compounds.</p> <p>3.6 Demonstrate hydrolysis of salts.</p> <p>3.7 Titrate acid and base</p> <p>3.8 Perform simple volumetric analysis</p>	<p>Demonstrate and assist students perform activity on 3.6.</p> <p>Demonstrate and assist students perform activity on 3.7, 3.8 and 3.9.</p> <p>Demonstration</p>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Bunsen burner</li> <li>• Flask</li> <li>• Acid compound</li> <li>• Base compound</li> <li>• Litmus papers</li> <li>• Water</li> <li>• Bunsen burner</li> <li>• Flask</li> <li>• Acid compound</li> <li>• Base compound</li> <li>• Litmus papers</li> </ul>	<p>Assignment Test Examination</p>

**GENERAL OBJECTIVE: 4.0 Understand Electrolysis /Electrolytes**

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
4.1 Define the following <ul style="list-style-type: none"> <li>- Electrolytes</li> <li>- Non-electrolytes</li> <li>- Electrolysis</li> </ul> 4.2 Describe ionic theory and ionization 4.3 Describe electrolytes/non-electrolytes 4.4 Explain Electrolysis 4.5 Enumerate the composition of air 4.6 Explain air pollution and purification 4.7 Explain water pollution and purification	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Demonstrate electrolysis and guide student to do return demonstration</li> </ul>	<ul style="list-style-type: none"> <li>• Multimedia projector/ Laptops</li> </ul>				Quiz Test Examination
<b>GENERAL OBJECTIVE: 5.0</b> Understand the application of knowledge of carbon and hydrocarbon compounds to <i>Public Health Practice</i> .						
Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
5.1 Define Carbons 5.2. List the properties of elements 5.3. Describe hydrocarbons (saturated and unsaturated) 5.4. Discuss the following functional group chemistry <ul style="list-style-type: none"> <li>- Alcohol</li> <li>- Amines</li> <li>- Carbonyls</li> <li>- Carboxylic acid etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> </ul>	Sample of : <ul style="list-style-type: none"> <li>• Alcohol</li> <li>• Amino</li> <li>• Carbon</li> <li>• Acids</li> <li>• Multimedia projector</li> </ul>				Quiz Test Examination
<b>GENERAL OBJECTIVE: 6.0</b> Know the classification and structure of organic and inorganic compounds and their application on Public Health Practice.						
Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
6.1 Define and Classify the following: <ul style="list-style-type: none"> <li>- Organic compounds</li> <li>- Inorganic compounds</li> </ul> 6.2 Enumerate examples of oxidation products of alcohol. 6.3. State examples and uses of aldehydes in EHT practice	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Sketch out examples of the structures for the students to observe.</li> </ul>	<ul style="list-style-type: none"> <li>• White board/Marker</li> <li>• Textbooks</li> <li>• Charts</li> <li>• Multimedia Projector /Laptops</li> </ul>				Quiz Test Examination

<p>6.4. Describe the Chemical Compounds of the following:-</p> <ul style="list-style-type: none"> <li>- Carbohydrates</li> <li>- Proteins</li> <li>- Fatty acids</li> <li>- Lipids</li> </ul> <p>6.5. State the biological importance of some organic and inorganic substances.</p> <p>6.6 Draw the biochemical structures of organic and in-organic compounds and list examples.</p>		<ul style="list-style-type: none"> <li>• Card board paper</li> <li>• Card board paper</li> <li>• Multimedia projector</li> <li>• Markers</li> </ul>				
<b>GENERAL OBJECTIVE: 7.0 Understand atomic structure and nuclear energy</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>7.1. Discuss natural and artificial radio-activity</p> <p>7.2. List radioactive elements</p> <p>7.3 Discuss types of radiations from radioactive elements e.g. alpha, beta, and gamma.</p> <p>7.4 Explain nuclear structure and radioactive decay</p> <p>7.5 Explain the following:-</p> <ul style="list-style-type: none"> <li>- Radio-isotopes</li> <li>- nuclear reaction</li> <li>- nuclear energy e.g. nuclear fusion</li> </ul> <p>7.7 Identify health hazards from radioactive substance</p> <p>7.8 State precautionary measures taken against biochemical and radioactive substances used in the Health Care System.</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> </ul>	<ul style="list-style-type: none"> <li>• Sample of substance with radio- active elements</li> <li>• Multimedia projector/Laptops</li> </ul>				<p><i>Quiz</i></p> <p><i>Test</i></p> <p><i>Examination</i></p>

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO BIOSTATISTICS</b>						
<b>COURSE CODE: PHT 122</b>						
<b>DURATION</b>	Lecture: - 30	Tutorial:	Practical: - 15	Total: 45 HRS		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is designed to provide the students with knowledge of biostatistics in health administration						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the fundamentals of Biostatistics.						
2.0 Understand the interpretation and presentation of Health data using descriptive statistical.						
3.0 Understand basic statistical tests.						
4.0 Understand the importance and type of vital statistics in Public Health.						
<b>GENERAL OBJECTIVE: 1.0 To know the fundamentals of Biostatistics</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Biostatistics. 1.2 Explain the sources of Biostatistics. 1.3 Describe the types of Biostatistics: • Descriptive • Inferential 1.4 Explain the uses of Biostatistics.	1.1 The teacher defines Biostatistics. 1.2 The teacher explains the sources of Biostatistics. 1.3 The teacher explains the uses of Biostatistics.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Student should define biostatistics and explain its sources, and types. They should also explain the uses of biostatistics.	Teacher to guide and support the students in achieving the task	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0 Understand the presentation of health data using descriptive statistical tools</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Compute and present health data using the following statistical tools. a. Measures of central tendency b. Measures of variability c. Graphs, Charts and Tables	The teacher explains and computes the data.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Student should compute health data using graphs, charts, table, measures of central tendency and variability.	Teacher should support the students to reach conclusion	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0 Compute statistical tests relating to health services</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

3.1 Compute Inferential statistical tests using- a) Measures of Association with linear correlation graph. b) Spearman's Rank Order Correlation. c) Pearson Correlation. d) Chi- Square test. e) Student T-test	The teacher explains how to compute the statistical test using relevant statistical tools.	White board, text books, journals, charts, Pictures, Projector Marker	Student shall compute statistical tests.	Teacher should support and provide guidance to achieve the task.	White board, text books, journals, charts, Pictures, Projector Marker	Test Examination Assignment
--	--	---	--	--	---	-----------------------------

**GENERAL OBJECTIVE: 4.0 Understand the types and importance of vital statistics in Public Health**

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Define Vital statistics 4.2 Explain: i) Vital event ii) Rate iii) Ratio iv) Proportion 4.3 Discuss types of vital statistics • Morbidity statistics • Mortality statistics • Natality statistics • Nuptiality statistics • Migration statistics and • Environmental Sanitation-related statistics 4.4 Compute morbidity statistics such as incidence rate, attack rate, point prevalence rate, relative risk rate. 4.5 Compute morbidity statistics such as crude death rate, specified death rates, infant mortality. 4.6 Calculate Nuptiality statistics such as marriage rate, child-woman ratio, divorce rates, sex ratio and dependency ratio. 4.7 Compute Natality statistics like Birth rate, Fertility rate and rate of natural increase, population doubling time	The teacher should define vital statistics and explain some vital events, rates and ratios.	Pictures Charts Books Projector White board Marker	Students should define vital statistics and explain some vital events, rates and ratios.		Pictures Charts Books Projector White board Marker	Test Examination Assignment

4.8 Compute migration statistics e.g immigration and emigration rates, net migration rate.						
4.9 Compute Environmental sanitation statistics like cheopis index, <i>Aedes-egypti</i> index, sanitation service coverage, occupancy ratio, per capita solid waste generation etc.						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: PUBLIC HEALTH NUTRITION</b>						
<b>COURSE CODE: PHT 123</b>						
<b>DURATION:</b>	Lecture: - 45	Tutorial: Nil	Practical: - Nil	Total: 45HRS		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The goal of the course is to prepare the students with understanding of public health nutrition.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Understand the meaning and scope of public health nutrition</li> <li>2. Understand nutritional problems</li> <li>3. Understand food hygiene and food sanitation.</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the meaning and scope of public health nutrition						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Meaning and scope of public health nutrition 1.2 Chemistry & physiology of food 1.3 Nutritive value of food & planning of balanced/adequate diet 1.3 Food processing & preservation	Explanation and discussion of the topics	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate food processing and preservation methods in the communities	Teacher to guide the students to prepare hypothetical balanced diet.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand nutritional problems.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Identify the following: 2.1 Nutritional problems 2.2 LBW 2.3 PEM/PCM 2.4 Exophthalmia 2.5 Nutritional anemia	Teacher to intensively teach students on the application of nutritional surveillance and	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials	i. Identify Nutritional assessment ii. Identify Nutritional surveillance & growth monitoring	Students to be guided on the application of nutritional surveillance	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials	Continuous assessment Practical Assignment Examination

2.6 IDD 2.7 Endemic fluorosis 2.8 Nutritional factors in selected diseases 2.9 Identify Nutritional assessment 2.10 Identify Nutritional surveillance & growth monitoring	growth monitoring	Projector Text book		and growth monitoring.	Projector Text book Model	
<b>GENERAL OBJECTIVE: 3.0</b> Understand food hygiene and food Sanitation.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Identify: 3.1 Food hygiene inspection & legal provisions 3.2 Food toxicants, food addiction, food fortification, food adulteration 3.3 Food standards 3.4 Nutrition policy & programs 3.5 Applied aspects of nutrition (dietetics) 3.6 NAFDAC and consumer protection agency/SON acts in relation to prevention of food adulteration and various licensing procedure related to them	Teacher to teach students on how to carry out routine food premises inspection using the approved checklist and report writing format.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate the procedure for food inspection	Teacher to teach students on how to carry out routine food premises inspection using the approved checklist and report writing format.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>				
<b>COURSE TITLE: SUBSTANCE USE AND ABUSE</b>				
<b>COURSE CODE: PHT 124</b>				
<b>DURATION:</b>	Lecture: - 30 Hour	Tutorial: Nil	Practical: - Nil	Total: 30Hours
<b>CREDIT UNITS: 2</b>				
<b>GOAL:</b> This course is designed to equip students with ample knowledge on how to handle drugs and substance addicts.				
GENERAL OBJECTIVE: On completion of the course, the student should be able to:				
<ol style="list-style-type: none"> <li>1. Understand the concept of drug and substance use and abuse.</li> <li>2. Understand the objectives of drug /substance education</li> <li>3. Understand the determinants and predisposing factors to drug/substance use and abuse.</li> <li>4. Understand the procedure for withdrawal on drugs and other substances abused.</li> <li>5. Understand the effects of drug and substance abuse.</li> <li>6. Understand Rehabilitation procedures for drug addicts in the community.</li> </ol>				

<b>GENERAL OBJECTIVE: 1.0</b> Understand the concept of drug and substance use and abuse.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define drug and substance use, abuse, misuse etc. 1.2 Enumerate the commonly abused drugs and substances in the community.	The teacher should explain the meaning of drug and substance use and abuse with relevant examples.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker Flip chart	Exhibit some commonly abused drugs in the society	The teacher should exhibit some of the commonly abused drugs in the society.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker Flip chart	Test Examination Class presentation by student
<b>GENERAL OBJECTIVE: 2.0</b> Understand the objectives of drug/substance education.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 State the objectives of drug/substance abuse 2.2 Explain the importance of drug and substance abuse	The teacher should state the objectives of drug/substances abuse. Teacher should also explain the importance of drug and substance abuse education to individuals, families, Communities at large	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Teacher should guide students presentation on objectives of drug /substance abuse and also importance of drug and substance abuse education.	The teacher should state the objectives of drug/substance abuse. Teacher should also explain the importance of drug and substance abuse education to individuals, families, Communities at large	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Test Examination Class presentation by students
<b>GENERAL OBJECTIVE: 3.0</b> Understand the determinants and predisposing factors to drug/substance use and abuse.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Explain the determinants and predisposing factors to drug/substance use and abuse eg. Unemployment, peer influence, parental up-brings etc	The teacher should explain to the students the determinants and predisposing factors to drug/substance use and abuse.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	The teacher should demonstrate to the students some of the predisposing factors to drug/substance abuse using a short drama or video clip.	The teacher should moderate the demonstration of the drama, video clip etc.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Test Examination Class presentation by students
<b>GENERAL OBJECTIVE: 4.0</b> Understand the procedure for withdrawal from drugs and other substances abused.						

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Explain the various procedures for withdrawal from drug/substance abuse.	The teacher should explain the various procedure for withdrawal from drugs/substance He should also explain the withdrawal syndrome	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	The teacher should demonstrate the procedure leading to total withdrawal from drugs/ substance abuse drug with students participation	The teacher should guide the percentage of the demonstration in the class for better understanding.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Test
4.2 Explain the withdrawal syndrome.						Examination
<b>GENERAL OBJECTIVE: 5.0</b> Understand the effect of drugs and substance abuse.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Explain the effects of drug/substance abuse to the individuals, families, communities and the society at large	Teacher should list and explain the effects of drug/substance abuse.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Teacher should demonstrate the effect of drug/substance that are commonly abused in a drama or video clip.	Teacher should guide the demonstration.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Test
5.2 Effects to the economy, health, etc.						Examination
<b>GENERAL OBJECTIVE: 6.0</b> Understand Rehabilitation procedures for drug addicts in the community.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Explain the concept of rehabilitation and its objectives.	The teacher should explain the rehabilitation procedure including its concept, objectives, institutions, the behaviors exhibited by drug addicts.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	The teacher should present pictures showing some drug addicts in rehabilitation institutions.	Teacher should guide the display of the relevant pictures.	Projector Textbook Internet Lecture note Charts Pictures Whiteboard Marker	Test
6.2 Explain Rehabilitation procedure.						Examination
6.3 Identify some rehabilitation institutions						Class presentation
6.4 Explain the behavior of a drug addict.						by students

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO ENVIRONMENTAL HEALTH</b>						
<b>COURSE CODE: EHT 111</b>						
<b>DURATION:</b>	Lecture: - 30 Hour	Tutorial: Nil	Practical: - 15hour	Total: 45Hours		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is designed to acquaint students with environmental health problems and solutions within the community.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Identify the various type of environment.</li> <li>2. Identify the component of environmental health.</li> <li>3. Identify environmental health hazards/problems in any community.</li> <li>4. Explain the relationship between air, water and soil pollution and human health.</li> <li>5. Identify type of waste water.</li> <li>6. Describe healthful housing, soil waste and excreta disposal methods in a community.</li> <li>7. Identify and control various of public health importance.</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Identify and describe various type of environment						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Define the term environment 1.2 Classify environment into the following; i. Physical (Abiotic) ii. Biological (biotic) iii. occupational, social-cultural and chemical etc 1.3 Describe the various component of environment listed in 1.2 above 1.4 Describe the characteristic of the various components of environments in your community	Teacher to supervise students classify environment into the following; i. Physical (Abiotic) ii. Biological (biotic) iii. Occupational, social-cultural and chemical etc	Lecture notes  Textbooks  Charts  Models	Classify with relevant examples the environment.	Teacher to supervise students classify environment into the following; i. Physical (Abiotic) ii. Biological (biotic) iii. Occupational, social-cultural and chemical etc	Lecture notes  Textbooks  Charts  Models	Test  Examination  Assignments
<b>GENERAL OBJECTIVE: 2.0</b> Understand the components of environmental Health in any community						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1 Explain health as a state of dynamic equilibrium between an organism and its environment in which all functions of mind and are normal 2.2 Define environmental health	Teacher to explain to students on indicators used for monitoring of	Lecture notes  Textbooks	i. Explain health as a state of dynamic equilibrium.	Teacher to explain to students on indicators used in	Lecture notes  Textbooks	Test  Examination  Assignments

<p>2.3 List the components of environmental health: air, water and soil pollution, housing, water supply and sanitation, solid waste management, water related diseases, vector control, environmental epidemiology and toxicology.</p> <p>2.4 Define solid waste management environmental epidemiology and environmental toxicology</p> <p>2.5 Explain each of the component listed in 2.3 above</p> <p>i. Provision of safe and adequate water  ii. Disposal of waste  iii. Safeguarding of food  iv. Control of insects vectors and other pest  v. Control of animal reservoir of infection  vi. Air hygiene and prevention of atmospheric pollution  vii. Elimination of other hazard such noise, radiation etc.  viii. Explain the relationship between good health and environment.</p>	<p>environmental health media (Air, Soil, Water etc.</p> <p>Teacher to state equipment used in solid waste management to students.</p>	<p>Charts Models</p>	<p>ii. Define and list components of environmental health.</p> <p>iii. Explain waste management methods.</p> <p>iv. Identify equipment for environmental media measurement.</p>	<p>monitoring of environmental health media (Air, Soil, Water etc.</p> <p>Teacher to state equipment used in solid waste management to students</p>	<p>Charts Models</p>	
---	--	--------------------------	---	---	--------------------------	--

**GENERAL OBJECTIVE: 3.0** Understand environmental health hazard in your community

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>3.1 Explain the term environmental hazard</p> <p>3.2 classify environmental hazard into; Physical, chemical, biological and socio-cultural (psychosocial)</p> <p>3.3 Describe examples of the four classes of environmental hazards listed in 3.2 above</p> <p>3.4 Explain how each of the examples is related to the health</p>	<p>Teacher to explain to students likely sources of Hazards in any of the Environmental media</p>	<p>-Lecture notes -Textbooks -Chart -Projectors -Models -Internet</p>	<p>Explain the meaning of hazard, sources, and control using residential and business premises as instance</p>	<p>Teacher to explain to students likely sources of Hazards in any of the Environmental media</p>	<p>-Lecture notes -Textbooks -Chart -Projectors -Models -Internet</p>	<p>Test Examination Assignments</p>

3.5 Explain how you may control common environmental hazard in your community						
<b>GENERAL OBJECTIVE: 4.0</b> Describe the relationship between air, water, soil pollution and human health						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Define the term; i. Air pollution ii. Water pollution iii. Soil pollution 4.2 List source of air pollution 4.3 List sources of soil pollution 4.4 List sources of water pollution 4.5 State the relationship between air pollution, water pollution and soil pollution 4.6 State how air, water and soil pollution affects human health and human activity 4.7 State how you can prevent and control soil pollution and contamination in the community	Teacher to describe to students remedies available to any type of pollution identified in column 4.3 below  Lectures  Discussion	-Lecture notes  -Textbooks  -Chart  -Projectors  -Models  -Internet		Teacher to describe to students remedies available to any type of pollution identified in column 4.3 below	Lecture notes  Textbooks  Charts  Models  Projectors  Internet	Test  Examination  Assignments
<b>GENERAL OBJECTIVE: 5.0</b> Identify types of waste water						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Define Portable or Wholesome Water 5.2 List Possible Sources of Water in A Community 5.3 Define Waste Water 5.4 State Types of Waste Water 5.5 State Sources of Waste Water 5.6 State Harmful Effects of Waste Water 5.7 Explain Waste Water Quality 5.8 State How to Prevent Harmful Effects of Waste Water	Teacher to explain to students on the conventional water and waste water treatment procedure	Lecture notes  Textbooks  Charts Models  Projectors  Internet	i. Define portable water, ii. State sources of water. iii. Identify waste water characteristic.	Teacher to explain to students on the conventional water and waste water treatment procedure.	Lecture notes  Textbooks  Charts Models  Projectors  Internet	Test  Examination  Assignments

5.9 Outline the behavior pattern and its effect on waste water						
5.10 List simple methods of water treatment e.g. boiling, filtration, water softening etc.						
5.11 Define water purification and water softening						
5.12 List simple method of waste water treatment e.g.						
i. Sedimentation						
ii. Disinfection						
iii. Chemical precipitation						
5.13 Describe method listed above						
5.14 State the advantages and disadvantages of each methods						
5.15 Carryout purification of water and waste water using simple method						

**GENERAL OBJECTIVE: 6.0** Understand healthful environment

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Describe ideal housing in relation to sanitary amenities	Teacher to teach students the requirement for an ideal housing and sanitary amenities needed. Teacher to explain to the students the advantages and disadvantages of the various methods listed in column 6.2	Model incinerator, other models.	Enumerate and describe waste management methods.	Teacher to teach students the requirement for an ideal housing and sanitary amenities needed. Teacher to explain to the students the advantages and disadvantages of the various methods listed in column 6.2	Lecture notes  Textbooks Charts Models Projectors Internet	Test  Examination  Assignments
6.2 Explain the simple methods of solid waste disposal in community						
i. Open dumping						
ii. Composting						
iii. Sanitary landfill						
iv. Controlled tipping						
v. Incineration						
vi. Recycling etc.						

**GENERAL OBJECTIVE: 7.0** Understand various public health vectors

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
7.1 Identify various public health vectors in community.	Teacher to teach students on how	Lecture notes Textbooks		Teacher to teach students on how	Lecture notes Textbooks	Test

7.2 Describe the methods of vector control including rodents control in a community biological, mechanical and integrated vector management (IVM)	to formulate organic pesticides that are used in Integrated vector management	Charts Models Preserved insect /pest Internet		to formulate organic pesticides that are used in Integrated vector management	Charts Models Preserved insect /pest Internet	Examination  Assignments
---	---	--	--	---	--	--------------------------------

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO DEMOGRAPHY</b>						
<b>COURSE CODE: PHT 126</b>						
<b>DURATION:</b>	Lecture: - 30 Hour	Tutorial: Nil	Practical: - Nil	Total: 30Hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> The course is intended to equip the students with knowledge and skills on demographic characteristics of population.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to: 1. Understand the concept of demography and population control.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the concept of demography and population control.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Define Demographic cycle, Population pyramid, Fertility. 1.1 Explain factors affecting fertility, Indicators of fertility, Population explosion as a public health problem, Approaches for population control 1.2 Family planning i. Definition ii. Scope iii. Health aspect iv. Method v. Spacing vi. Terminal methods 1.4 Discuss Delivery System 1.5 Explain National family welfare program	Teacher to teach students on how to draw the population pyramid.  Teacher to teach students on factors that influences population growth.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	i. Provide the definition of concepts  ii. Outline population control methods.  iii. Draw the population pyramid	Teacher to teach students on how to draw the population pyramid.  Teacher to teach students on factors that influences population growth.	Lecture notes  Textbooks  Charts  Models  Projectors  Internet	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO MENTAL HEALTH</b>						
<b>COURSE CODE: CHO136</b>						
<b>DURATION:</b>	Lecture: - 30 Hour	Tutorial: Nil	Practical: - Nil	Total: 30Hours		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to provide students with the basic knowledge of the concepts of mental health an illness						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to: 1.0 Understand the concepts associated with mental health and mental illness. 2.0 Know the factors that cause mental disorders. 3.0 Know the common mental health disorder and emergencies. 4.0 Understand the management of some mental health disorders. 5.0 Understand community mental health and referral services 6.0 Know the various methods of rehabilitation and management of the mentally ill within the community.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the concepts associated with mental health & mental illness.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define mental health and mental illness 1.2 Outline the historical development of psychiatric medicine and psychiatric nursing in Nigeria and the world. 1.3 Describe the changing concepts of mental health care in Nigeria. 1.4 Explain the emotional health needs of individuals, families and communities. 1.5 Explain the concept of personality development.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Group work</li> <li>• Multimedia presentations</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Provide the definition, history, emotional health, personality development.	Task the students on group work	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the concepts associated with mental health & mental illness.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Explain the theories of the etiology of mental illness: - Freudian Theory - Biochemical Theory etc	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Multimedia presentations</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes	i. Describe the theories of aetiology of mental health. ii. List the causes of mental health.	Engage student in group presentation	Posters audio- visuals	Continuous assessment Practical Assignment Examination

<p>2.2 List the various causes of mental illness under the following headings:</p> <ul style="list-style-type: none"> <li>- Physical causes</li> <li>- Psychological causes etc</li> <li>- Environmental causes</li> <li>- Psycho/social causes, etc</li> </ul>		<p>Pictorials Projector Text book</p>				
<b>GENERAL OBJECTIVE: 3.0</b> Know the common mental health disorders & emergencies in the community						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>3.1 pattern of behaviour disorders</p> <p>3.2 Explain the adaptive process in symptom formation</p> <p>3.3 Classify mental disorders according to causes.</p> <p>3.4 Define neurotic and psychotic disorders.</p> <p>3.5 Describe the signs &amp; symptom of neurotic disorders i.e.</p> <ul style="list-style-type: none"> <li>- Anxiety</li> <li>- Phobia</li> <li>- Obsessive compulsive neurosis</li> <li>- Hypochondriasis</li> <li>- Neurasthenics etc.</li> </ul> <p>3.6 Describe the signs &amp; symptoms of psychotic disorders:</p> <ul style="list-style-type: none"> <li>- Schizophrenias</li> <li>- Depression</li> <li>- Mania</li> <li>- Manic / depressive psychotic disorders etc.</li> <li>- Organic disorders</li> <li>- Personality disorders</li> <li>- Psychosomatic disorders</li> <li>- Emotional disorders of life cycle</li> <li>- Substance abuse (Drug and Alcohol)</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discuss</li> <li>• Group work</li> <li>• Assignment</li> </ul>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>3.4 Conduct visits to the ward to observe the clinical manifestation of mental health disorders.</p>	<p>Visit within students to mental homes / hospitals.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Continuous assessment Practical Assignment Examination</p>

3.7 Describe the management of patients with neurotic and psychotic disorders using the nursing process.						
<b>GENERAL OBJECTIVE: 4</b> Understand the management of some mental health disorders						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 State the Mental Health Laws and Acts related to treatment of patients. 4.2 Outline the types of admissions in mental hospitals 4.3 Describe the assessment of mental health status of individuals and families. 4.4 Explain psychiatric emergencies and their management 4.5 Describe somatic therapy, activity therapy and Psychotherapy <b>4.6</b> Explain the management of some mental disorders: depression, anxiety, schizophrenia, substance abuse etc.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Group work</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	4.6 Manage acute Mental Disorder 4.6 Organize health education and counseling of patients. 4.10 visit the hospital to observe how Electro Convulsive Therapy (E.C.T) and other therapies are administered.	<ul style="list-style-type: none"> <li>• Apply public health process in the management of acute and chronic mental disorder.</li> <li>• Guide students to health educate and counsel of patients.</li> <li>• Visit to psychiatric hospital, ECT units</li> <li>• Multimedia presentations</li> </ul>	<ul style="list-style-type: none"> <li>• Charts</li> <li>• Video clips</li> <li>• Multimedia projector</li> <li>• Audio Visuals</li> <li>• ECT machine</li> </ul>	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 5.0</b> Understand community mental health and referral services						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Identify the factors that contribute to the causes or aggravation of mental illness within the family & environment. 5.2 Outline the traditional and other methods of treatment and management of mentally ill persons in the community. 5.3 Explain follow- up care and/home visits. 5.4 Discuss the referral services in mental health care.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Brain storming</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	5.1 Organize and maintain therapeutic environment 5.1 Educate the community on promotion of good mental health 5.2 Conduct visit to a traditional mental health home/ facilities to understudy the traditional management of mental illness. 5.4 Organize a two-way referral system	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• Field trip to traditional mental health facilities</li> </ul>	<ul style="list-style-type: none"> <li>• Charts</li> <li>• Video clips</li> <li>• Multimedia projector</li> <li>• Referral forms</li> </ul>	Continuous assessment Practical Assignment Examination

<b>GENERAL OBJECTIVE: 6.0</b> Know the various methods of rehabilitation of the mentally ill within the community.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Outline the principles of rehabilitation of the mentally ill persons. 6.2 Explain the methods of rehabilitation of the mentally ill persons in the community i.e. - Half-way house or homes - Day & Night Hospital - Occasional leave/trial leave - Sheltered workshop - Parole 6.3 Outline the preventive measures of mental illness.	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Group discussion</li> <li>• Multimedia presentations</li> <li>• Visits to rehabilitation centres</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Role play on rehabilitation processes.	Organise a visit to a rehabilitation home.	<ul style="list-style-type: none"> <li>• Textbooks</li> <li>• Journals</li> <li>• White board</li> <li>• Markers</li> <li>• Multimedia projector</li> <li>• Laptops</li> </ul>	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO EPIDEMIOLOGY</b>						
<b>COURSE CODE: EHT 212</b>						
<b>DURATION:</b>	Lecture: - 30	Tutorial: Nil	Practical: - Nil	Total: 30HRS		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> The goal of the course is to provide students with the general understanding of epidemiology in public health practice						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<b>1.</b> Understand the concept of epidemiology in public health practice						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Definition of terms & the aim of epidemiology 1.2 Explain Epidemiological approach 1.3 Discuss Basic measurement in Epidemiology. 1.4 list and explain types of Epidemiological studies 1.4.1 Observational a. Descriptive	The teacher should define some basic terms used in the study of epidemiology.  Teacher should also explain epidemiological approach and some	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should define some basic terms used in the study of epidemiology. Teacher should also explain epidemiological approach and some basic measurements in	Teacher should provide support and guide to the students .	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

b. Analytic 1.4.2 Experimental 1.5 Expatiate on Association & causation. 1.6 State the Uses of Epidemiology. 1.7 Describe Infectious disease Epidemiology. 1.8 Explain the process of Investigation of an epidemic of Cholera/GE, TB, Onchocerciasis, HIV/AIDS 1.9 Prepare Health advice to travelers 1.10 Disinfection 1.11 Control of Hospital acquired infections 1.12 Screening for diseases	basic measurements in epidemiology, epidemiological studies and uses of epidemiology should be explained.		epidemiology, epidemiological studies and uses of epidemiology should be explained.			
---	---	--	---	--	--	--

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: INTRODUCTION TO ENTREPRENEURSHIP EDUCATION</b>						
<b>COURSE CODE: EED 126</b>						
<b>DURATION:</b>	Lecture: - 15	Tutorial:	Practical: - 15	Total: 30 HRS		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to enable students to develop an entrepreneurial mindset and awareness.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1 Understand the meaning and scope of Enterprise and Entrepreneurship 2 Understand the history and Government Policy measures at promoting Entrepreneurship in Nigeria 3 Understand the types, characteristics and rationale of Entrepreneurship 4 Understand the role of Entrepreneurship in economic development 5 Understand Entrepreneurial characteristics and attitude 6 Understand the key competencies and determining factors for success in Entrepreneurship 7 Know the motivational pattern of Entrepreneurs.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the meaning and scope of Enterprise and Entrepreneurship						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

1.1 Define an Enterprise in its narrower and wider contexts. 1.2 Explain different forms of Enterprises 1.3 Classify the different forms of Enterprises into small, medium and large enterprises 1.4 Explain the terms: Entrepreneur, Entrepreneurship, Wage Employment, and self-employment, explain clearly the business terrain in Nigeria.	i. Explain the terms: Enterprise, Entrepreneurship ii. List the different types of enterprises and group them into small, medium and large enterprise iii. Compare and contrast wage employment and self-employment. iv. Explain clearly the business terrain in Nigeria.	Text Books	1.5 Identify features of the types of enterprises identified. 1.6 Identify the facilities and opportunities available for self-employment. 1.7 Identify successful entrepreneurs in Nigeria. 1.8 Evaluate the role of entrepreneurship in wealth creation.	Guide students to research into different forms of enterprises. Guide students to research and identify criteria for successful entrepreneurship. Establish competitive groups. Students to make formal presentations of their findings. Students to undertake enquiry learning on selected entrepreneur and enterprise.	Successful Entrepreneur to speak on the role and importance of Entrepreneurship.  Use of internet and relevant video clips.	Continuous assessment Practical Assignment Examination
---	--	------------	---	--	---	---

**GENERAL OBJECTIVE: 2.0** Understand the history and Government Policy measures at promoting Entrepreneurship in Nigeria

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
2.1 Trace the evolution of entrepreneurship development. 2.2 Compare Entrepreneurship in Nigeria with Japan, India, China, Malaysia, South Korea, etc 2.3 Explain Nigeria's values in relation to Entrepreneurship. 2.4 Describe the role of Entrepreneurship In the development of enterprises.	i. Explain the historical development and role of entrepreneurship in the development of enterprises in Nigeria. ii. Compare Entrepreneurship in Nigeria with other countries of the world. Japan, India, China, Malaysia, South Korea. iii. Show students video film on Entrepreneurship development in any of the countries mentioned above. iv. Explain Nigeria's values and Entrepreneurship.	Text Books Journals Publications Video Film TV & VCR	Obtain the required information from the net.	Guide students to search the web for historical evolution of entrepreneurship in other parts of the world. Research and list various Government Measures on SME's and Industrial Development from 1960 to date.	Internet.	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE: 3.0** Understand the types, characteristics and rationale of Entrepreneurship

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Explain types of Entrepreneurs and their characteristics. 3.2 Compare and contrast Technological and Social Entrepreneurship. 3.3 Identify the different types of Entrepreneurs: self-employed, opportunistic, Inventors, Pattern multipliers etc. 3.4 Identify the role of Entrepreneurship in business, society and in self-employment.	i. Explain types of Entrepreneurs. ii. Explain types of Entrepreneurship. iii. Explain features of Entrepreneurship in business. iv. Explain the rewards and efforts Entrepreneurship in business. v. Describe the different types of Entrepreneurs vi. Describe the role of entrepreneurship in business, society employment generation and wealth creation. vii. Explain the benefits of self-employment.	Text Books. K.A.B. Journals Publications Video Film TV & VCR	3.5 Analyze life situations people may find themselves in. 3.6 Enumerate the benefits to be derived from the above situation.	Guide students to identify opportunities from the environment.	Internet. Textbooks Journals	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 4.0 Understand the role of Entrepreneurship in economic development</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Identify resources and constraints of Entrepreneurship. 4.2 Explain how Entrepreneurship leads to import substitution and utilization of local resources. 4.3 Explain how Entrepreneurship leads to socio-economic development. 4.4 Explain the role of an entrepreneur in grassroots/local economic development.	I. Explain resources and constraints of Entrepreneur. II. Relate import substitution to utilization of local resources. III. Explain equitable distribution of industries and the role of entrepreneurship. IV. Explain how entrepreneurship leads to job creation.	Text Books. Journals Publications Video Film TV & VCR	4.5 Classify the resources into economic, human, knowledge and time. 4.6 Distinguish between economic development and growth.	Show transparency of resources needed by an entrepreneur. Guide students to visit selected enterprise/comm unity projects. Guide students on the use of local raw materials for value addition.	Computer or Overhead Projector SME's	Continuous assessment Practical Assignment Examination

<b>GENERAL OBJECTIVE: 5.0</b> Understand Entrepreneurial characteristics and attitude						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Explain the philosophy, values, scope, need and characteristic of Entrepreneurship. 5.2 Explain the profiles of local Entrepreneurs. 5.3 Demonstrate high sense of innovation, creativity and independence. 5.4 Explain the process of acquiring high sense of information seeking and ability in operating an enterprise. 5.5 Identify various risks and remedies involved in operating an enterprise. 5.6 Evaluate pilot project considering resources, time, personnel, equipment, money, materials etc. 5.7 Demonstrate leadership and leadership skills by mobilizing resources for establishing an enterprise. 5.8 Demonstrate high level problem solving techniques in overcoming internal and external constraints.	i. Using slide or PowerPoint explain personal characteristics and attitude of an Entrepreneur ii. List Entrepreneurial traits citing relevant cases. iii. Explain the aspiration, determination and efficiency of an Entrepreneur. iv. Explain how to demonstrate high sense of innovation creativity and independence. v. Describe how to evaluate a private project. vi. Describe how to mobilize resources for establishing an enterprise. vii. Describe how to solve problems involving internal and external constraints.	Textbooks Journals Computer Projector	5.9 Evaluate the opportunities identifying corresponding self-employment opportunities. 5.10 Evaluate a project considering its resources: management of time, personnel, equipment and money. 5.11 Explain constraints and problem solving techniques.	Guide students to identify as many job/employment opportunities as possible. Guide students to visit a successful enterprise, and evaluate its resources to identify its contribution to economy, its internal and external constraints and available problem solving techniques. Group students to survey and interview Entrepreneurs. Evaluate a sample project with the students, then give them assignment to assess one.	Computer Projector Guest Speakers (Female/Male) Internet search.	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 6.0</b> Understand the key competencies and determining factors for success in Entrepreneurship						

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective	Teachers Activities	Learning Resources	Evaluation
<p>6.1 Identify the key competencies required in setting up a successful small business; knowledge, skill and Traits.</p> <p>6.2 Identify key success factors in setting a small business: Resources, Ability, Motivation and Determination, Idea and Market etc.</p> <p>6.3 Define individual life goal and link it to Entrepreneurship.</p> <p>6.4 Identify the strengths and weaknesses in 6.3 above.</p> <p>6.5 Explain business games.</p> <p>6.6 Explain the behavioral pattern observed in 6.5 above on: Moderate risk taking, goal setting, Learning from feedback. Taking personal responsibility. Confidence and self-reliance.</p>	<p>i. Explain major competencies required for successful Entrepreneurship</p> <p>ii. Explain key success factors in setting up small business.</p> <p>iii. Explain individual life goal of an Entrepreneur</p> <p>iv. Explain relevant business games and their behavioral patterns.</p>	<p>Text Books.</p> <p>Journals</p> <p>Publications</p> <p>Video Film</p> <p>TV &amp; VCR</p>	<p>6.7 Describe: Data collection about self, who am I (personal efficacy). Rating of concept, self-knowledge.</p> <p>6.8 Play a relevant business game and observe the behavioral pattern in relation to moderate risk taking, goal setting etc.</p> <p>6.9 Identify core skills, competencies, and success factors required for entrepreneurship.</p>	<p>Guide students to demonstrate knowledge of themselves, goals, Entrepreneurship strengths and weaknesses.</p> <p>Give practical assignment to students on personal efficacy, goal and link to Entrepreneurship strength and weaknesses.</p> <p>Demonstrate how to play business game.</p> <p>Visit a small business enterprise.</p>	<p>Computer and accessories, internet and visitations.</p> <p>Blocks</p> <p>Rings</p> <p>Papers</p>	<p>Continuous assessment</p> <p>Practical Assignment Examination</p>
<b>GENERAL OBJECTIVE: 7.0 Know the motivational pattern of Entrepreneurs.</b>						
Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation

7.1 Define motivation.	i. Explain motivation, objectives, merit and demerit.	Text Books Journals Publications	7.7 Analyze motive strength from TAT score using a given case.	Illustrate how to carryout analysis on motive strength from TAT scores using related case studies.	Computer And Internet facilities	Continuous assessment Practical Assignment Examination
7.2 List the objectives of motivation.	ii. Explain TAT scores.					
7.3 Identify barriers to motivation and achievement.	iii Explain how to carryout analysis on motive strength from TAT scores.					
7.4 Explain Thematic Appreciation Test (TAT) scores.	iv. Explain spirit of AMT.					
7.5 Explain how to analyze motive strength from TAT score						
7.6 Explain the spirit of Achievement Motivation Test (AMT)						

**PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY**

**COURSE TITLE: Introduction to Community Health**

**COURSE CODE: PHT 201**

**DURATION:** Lecture: - 30Hrs Tutorial: Nil Practical: - Nil Total: 30Hrs

**CREDIT UNITS: 2**

**GOAL:** The goal of this course is to prepare the students to be able to understand community health and community development.

**GENERAL OBJECTIVE:** On completion of the course, the student should be able to:

- 1.0 Understand some terms in relation to Community Health.
- 2.0 Define Community.
- 3.0 Understand the concept of community organization and development.
- 4.0 Understand the concept of community diagnosis and mobilization.

**GENERAL OBJECTIVE: 1.0** Understand some terms in relation to Community Health

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
1.1 Define of Community Health 1.2 Describe community organization development 1.3 Define community diagnosis mobilization 1.4 Describe the steps involved in community organization and development	The teacher should define Community, Community Health, Organization, Development, Diagnosis and Mobilization.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate community mobilization intervention to community.	Teachers to guide the conduct of mobilizing the community.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE: 2.0** Define Community.

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Define community 2.2 List the types of community 2.3 Explain the characteristics of community	Teacher should define community, its types and characteristics.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should differentiate between communities based on their nature.	Teacher should guide the students in differentiating communities.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE: 3.0** Understand the concept of community organization and development.

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Concept and component of community organization and development 3.2 Definition of organization and development 3.3 Steps involved in community organization and development	Teacher should explain community organization and development.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Teacher organize and carryout community organization and development intervention simulation	Teacher to guide the conduct of the activity.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE: 4.0** Understand the concept of community diagnosis and mobilization.

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Discuss the following: 4.1 Concept of mobilization 4.2 Steps involved in community mobilization 4.3 Importance of community mobilization 4.4 Relationship between community mobilization and community participation 4.5 Importance of community participation in community mobilization	Teacher should explain the concept of community mobilization and the steps to carry it out.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Student/Teacher should carryout community organization and development in selected areas.	Teacher to guide the process	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Communicable and Non-Communicable Diseases</b>						
<b>COURSE CODE: PHT 211</b>						
<b>DURATION:</b>	Lecture: - 40Hrs	Tutorial: 5Hrs	Practical: - Nil	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is designed to prepare the student with knowledge and skills on the epidemiology of communicable diseases and non-communicable diseases.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the concept and epidemiology of Communicable Diseases						
2.0 Understand the Concept and epidemiology of Non-Communicable Diseases						
<b>GENERAL OBJECTIVE: 1.0</b> Concept and epidemiology of communicable diseases						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Communicable Diseases, Infection, etc. Explain the following: 1.2 Air borne infection 1.3 Contact infection 1.4 Water borne and food borne diseases 1.4.1 Vector borne diseases a. Zoonotic diseases b. Surface infection 1.4.2 Emerging and re-emerging infectious diseases 1.5 Hospital Acquired Infections 1.6 Programs for the control of communicable diseases	The Teacher shall define communicable diseases and the NCD, including some examples in each case.  The chain of infection should also be explained to the students.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	The Student should be exposed to some facilities where they can differentiate cases of Communicable diseases and NCD.	Teacher should guide the activity.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

1.7 Infectious disease process (Chain of infection)						
1.8 Surveillance of communicable diseases						
1.9 Process of investigating outbreaks						
<b>GENERAL OBJECTIVE: 2.0</b> Concept and epidemiology of non-communicable diseases						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Define non-communicable diseases 2.2 Explain classification of NCD 2.3 Predisposing factors to NCD 2.4 Prevention and control of NCD 2.5 Cardiovascular diseases 2.6 Cancer 2.7 Diabetes mellitus 2.8 Disaster 2.9 Blindness 2.10 Accidents 2.11 Obesity	The Teacher should define some terms in relation to Communicable and Non-Communicable Diseases and some common examples of diseases in each category.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should be able to detect some Non-Communicable Diseases and their predisposing factors.	Teachers should guide the process of detection of the NCD and the predisposing factors.	BP Apparatus Thermometer Centrifuging Machine Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>				
<b>COURSE TITLE: Primary Health Care</b>				
<b>COURSE CODE: PHT 212</b>				
<b>DURATION:</b>	Lecture: -30Hrs	Tutorial: Nil	Practical: - 15Hrs	Total: 45Hrs
<b>CREDIT UNITS: 3</b>				

<b>GOAL:</b> This course is designed to enable students						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Know the historical background, principles, concepts and components of PHC in Nigeria.						
2.0 Know the structure and health needs of the Community.						
3.0 Know the roles of various cadre of health workers in PHC facilities.						
4.0 Know the process and resources required for effective community mobilization & participation in health care activities.						
5.0 Understand the concept of community diagnosis and situation analysis						
6.0 Understand the concept and techniques of Health Education.						
7.0 Know the basic clinical skills required in PHC						
<b>GENERAL OBJECTIVE: 1.0</b> Know the historical background, principles, concepts and components of PHC in Nigeria.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Primary Health Care (PHC).	Lecture	Bulletins	Draw an organogram of the PHC set-up in Nigeria.	Supervise drawing of PHC organogram	Bulletins	Continuous assessment
1.2 Discuss the historical development, concepts and principles of PHC.	Discussion	Charts			Charts	Practical
1.3 List the components of PHC.	Use an organogram to explain PHC set up in Nigeria.	Internet/Intranet			Internet/Intranet	Assignment
1.4 Describe the structure of health care system in Nigeria.		Journals			Journals	Examination
1.5 Explain an organogram of the PHC set up in Nigeria.		Lecture notes			Lecture notes	
1.6 Describe the operational level of PHC at the Local Government Areas in Nigeria.		Pictorials			Pictorials	
1.7 Explain the roles, functions and		Projector			Projector	
		Text book			Text book	

responsibilities of the nurse in PHC 1.8 Describe the multidisciplinary, intersectoral and team approach to PHC						
<b>GENERAL OBJECTIVE: 2.0</b> Know the structure and health needs of the Community.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Define Community: -Family pattern -Health pattern 2.2 Describe a typical community with emphasis on the leadership and decision- making structure 2.3 State functions of a community. 2.4 Identify the health needs of the community through survey.	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> <li>Role play</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Identify different family patterns in the community. Carry out health survey and identify the health needs of the community.	Supervise identification of different family patterns in the community. Supervise identification of health and disease patterns in the community. Take a trip with students to survey a community. Discuss the process of how to identify the health needs of the community.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0</b> Know the roles of various cadre of health workers in PHC facilities						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 List the various categories of health workers within the PHC system in Nigeria e.g. Community	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials	Students should write and present the categories of PHC Workers in Nigeria.	Teacher to guide the process of coming up with the relevant PHC workers.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials	Continuous assessment Practical Assignment Examination

Physicians, Midwives. Public Health Nurses, Community Health Officers, etc. 3.2 Describe the role of each category of health worker listed in 3.1. 3.2 Explain the collaborative roles of the P.H.C team. 3.4 State the roles of a nurse practitioner in a PHC setting		Projector Text book			Projector Text book	
<b>GENERAL OBJECTIVE: 4.0</b> Know the process and resources required for effective community mobilization & participation in health care activities						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Define Community Mobilization, Participation, Advocacy and Group dynamics. 4.2 Explain the concept of community mobilization and participation. 4.3 Explain the rationale for community mobilization and participation in Primary Health Care. 4.4 Explain advocacy process in	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Identify the different community committees involved in community mobilization and participation.	Identify the different committees involved in community mobilization and participation.  Supervise report on visit to community	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<p>community mobilization &amp; participation.</p> <p>4.5 Describe the steps involved in community mobilization.</p> <p>4.6 State the various committees involved in community mobilization and participation.</p> <p>4.7 Explain the composition and functions of the various committees involved in community mobilization and participation.</p> <p>4.8 Describe the use of group dynamics in Primary Health Care.</p>						
<b>GENERAL OBJECTIVE: 5.0</b> Understand the concept of community diagnosis and situation analysis						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
<p>1. Explain the terms: Community diagnosis, Situation analysis, Community mobilization.</p> <p>2. Explain the role of community diagnosis and</p>	<p>The Teacher should explain the concept of Community Diagnosis and Mobilization, Situation Analysis in PHC.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Student should mobilize and diagnose a community for health action.</p> <p>They should also analyze a community</p>	<p>Teacher should guide the process for the students.</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Continuous assessment Practical Assignment Examination</p>

<p>situation analysis in PHC.</p> <p>3. List the methods and steps used in community diagnosis and mobilization.</p> <p>4. Describe the instruments and steps used in situation analysis.</p>			<p>to find out its specific needs.</p>			
<p><b>GENERAL OBJECTIVE 6.0</b> Understand the concept and techniques of Health Education</p>						
<p><b>Specific Learning Objectives (Theory)</b></p>	<p><b>Teachers Activities</b></p>	<p><b>Learning Resources</b></p>	<p><b>Specific Learning Objective (Practical)</b></p>	<p><b>Teachers Activities</b></p>	<p><b>Learning Resources</b></p>	<p><b>Evaluation</b></p>
<p>6.1 Define:</p> <ul style="list-style-type: none"> <li>• Health Education</li> <li>• Behaviour Change Communication (BCC)</li> <li>• Behaviour modification</li> </ul> <p>6.2 Describe communication skills and group dynamics in Primary Health Care.</p> <p>6.3 Explain the principles and methods of Behaviour Change Communication' (BCC) and Health Education.</p> <p>6.4 Explain the application of Principle of</p>	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discussion</li> <li>• Demonstration</li> <li>• Role-play</li> </ul>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Apply communication skills in PHC setting Carry out health talks or Health Education Prepare and use audio-visual aids for the activities</p>	<p>Demonstration Teacher supervises health education activity by students</p>	<p>Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book</p>	<p>Continuous assessment Practical Assignment Examination</p>

teaching and learning to BCC. 6.5 Explain the importance of Guidance and Counseling in Primary Health Care.						
<b>GENERAL OBJECTIVE 7.0:</b> Know the basic clinical skills required in PHC						
<b>Specific Learning Objectives (Theory)</b>	<b>Teacher's Activities</b>	<b>Resources</b>	<b>Specific Learning Objectives (Practical)</b>	<b>Teacher's Activities</b>	<b>Resources</b>	<b>Evaluation</b>
7.1 Define History taking, reporting, recording. 7.2 Describe the steps involved in history taking, reporting and recording. 7.3 Describe physical assessment of a client or patient. 7.4 Define Standing Order. 7.5 Describe how to use standing orders. 7.6 Describe diagnostic techniques and skills required in client care.	<ul style="list-style-type: none"> <li>Lecture</li> <li>Discussion</li> </ul>	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Conduct complete physical examination on a client/patient. Assess the socio-economic and nutritional status of patient/client to identify high risk clients through: weighing & charting of weight data. Use of mid -upper - arm circumference strip (shirker strip) Recording findings and maintain clients health records Utilize standing orders for the diagnosis and treatment of diseases in PHC. 7.5 Utilize proper diagnostic techniques and skills in client care (contact tracing and surveillance)	Demonstration Return demonstration Student's supervision	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Research Methodology</b>						
<b>COURSE CODE: GNS 218</b>						
<b>DURATION:</b>	Lecture: - 30Hrs	Tutorial: Nil	Practical: - Nil	Total: 30Hrs		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> The course is designed to equip students with knowledge of research skills, to be inquisitive, innovative and discretionary and to present research outcome in a logical order.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Explain the meaning of research 2.0 Explain the feature of research method 3.0 Describe the approach to research 4.0 Describe the design and planning of research 5.0 Explain the sampling techniques 6.0 Explain the use of statistics in research 7.0 Describe the conduct and presentation of research result 8.0 Explain Layout of research report						
<b>GENERAL OBJECTIVE: 1.0</b> Explain the meaning of research						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define research  1.2 List and describe the types of research (e.g. historical, descriptive, experimental etc.)  1.3 Explain the aims of research	Teacher should define research and list the types of research including the aims of research.	Projector Text book Internet Lecture notes Charts Pictures Whiteboard Marker	Students should define research and list the types of research including the aims of research.	Teacher should guide the students to arrive at a correct answer.	Projector Video/Audio devices Models Internet Lecture notes Charts Pictures Whiteboard Marker	Test Examination
<b>GENERAL OBJECTIVE: 2.0</b> Explain the features of research methods						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

2.1 Meaning of research methodology	Teacher should explain methodology used in research based on their types to suit the research.	Projector Text book Internet Lecture notes Charts Pictures White board Marker	Student should apply methodology to their research.	Teacher should guide the student to come up with a better methodology.	Journals Student's project Internet Newspapers Magazines	Test Examination Report
2.2 Explain research methods						
2.3 List and explain the method of conducting research (e.g. survey)						
<b>GENERAL OBJECTIVE: 3.0</b> Describe approach of research						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Choose a field of research 3.2 Formulate a research title 3.3 Search for useful sources of information on the field of research (museums, market, hospitals, library, internet, etc.) 3.4 Compile an index card system for research title 3.5 Review related literature on the subject matter of research	Teacher should lead the student to select an area of research and formulate a researchable topic and review literature basic on the study objectives.	Projector Text book Internet Lecture notes Charts Pictures Whiteboard Marker Journal Projects	Students should formulate a research topic and review literature using available materials like journals and students' projects.	Teacher should guide the student in formulating and reviewing literature.	Journals Students' projects Internet Magazines Newspapers	Test Examination Project Report Project Defense
<b>GENERAL OBJECTIVE: 4.0</b> Describe the design and planning of a research						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Explain research design 4.2 Give examples of research design 4.3 List and explain the methods to be applied in research design e.g. intervention and non – intervention studies,	The Teacher should explain Research Design and the different types of design used in Research.	Projector Text book Internet Lecture notes Charts Pictures Whiteboard Marker	Student should use appropriate design for their research.	Teacher should guide the use of design in research for appropriateness.	Projector Video/Audio Devices Models	Test Examination Classwork assignment

questionnaire, interview, home visits and observation. 4.4 Explain the merits and demerits of various research design 4.5 Choose any of the methods most appropriate to your research (project)						
<b>GENERAL OBJECTIVE: 5.0</b> Explain sample techniques						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Define sampling 5.2 List type of sampling (e.g. Stratified, random etc) 5.3 Explain the types sampling in 5.2 above 5.4 Explain the advantages and disadvantages of each types of sampling in 5.2 above 5.5 Choose the sample size or population appropriate to your research 5.6 Identify any of the methods in 5.2 above for a particular research	Teacher should explain Sampling and its relevance to research process.	Projector Text book Internet Lecture notes Charts Pictures Whiteboard Marker	Student should take sample, representative of the population of their study and use it to generalize.	Teacher should guide the student in sample of population of the study.	Projector Text book Internet Lecture notes Charts Pictures Whiteboard Marker	Test Examination Assignments Classwork
<b>GENERAL OBJECTIVE: 6.0</b> Explain the use statistics in research						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Define basic statistics 6.2 Identify the tests used in basic statistics	Teacher should explain basic statistics and tests in the statistics.	Lecture notes Internets Whiteboards Marker Charts	Student should test hypothesis for verification.	Teacher should guide the test procedure.	Lecture notes Internets Whiteboards Marker Charts	Test Examination Assignment Classwork

6.3 Explain the characteristics of each of the test in 6.2 above	He should also explain the characteristics of the tests identified.					
6.4 Determine the suitable of each of the test in 6.2 above						

**GENERAL OBJECTIVE: 7.0** Describe the conduct and presentation of research result

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1. Carryout the research experiment using any research design. 2. Collect data for the experiment in 7.1 above. 3. Analyzed the data using appropriate methods. 4. Interpret the results obtained from the research. 5. Write up the report of the research conducted	Teacher should explain the procedure for carrying out a research and selection of appropriate design for the study.  He should explain how results are interpreted and report documented.	Whiteboard Marker Textbooks Lecture notes Internet Charts	Student should carryout research and select sample, that is representative of the research population  They should also interpret their results and write report on the research.	Teacher should guide the student to arrive at a more valid and credible research.	Whiteboard Marker Textbooks Lecture notes Internet Charts	Assignments Tests Examination Classwork

**GENERAL OBJECTIVES: 8.0** Layout of research report

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Explain Research Report Layout using the following Format: - Preliminary - Title paper - Preface - Acknowledgement - Abstract - Table of contents - List of tables, charts etc. - List of abbreviations - Body of the reports - Introduction	Teacher should explain the procedure in reporting research outcomes based on some agreeable headlines.	Whiteboard Marker Textbooks Lecture notes Internet Charts	Students should report the outcome of their research based on the agreeable headings.	Teacher should guide the student in writing appropriately.	Whiteboard Marker Textbooks Lecture notes Internet Charts	Assignments Tests Examination Classwork

- Literature review - Material and method - Results and findings - Discussion - Conclusion and recommendations - References						
--	--	--	--	--	--	--

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Emergency Response</b>						
<b>COURSE CODE: PHT 213</b>						
<b>DURATION:</b>	Lecture: - 25Hrs	Tutorial: Nil	Practical: - 5Hrs	Total: 30Hrs		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is intended to equip the students with the knowledge and skills to carry out environmental health activities in emergencies						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Understand disaster management cycle.</li> <li>2. Know steps involved in disaster /emergency preparedness.</li> <li>3. Demonstrate how to carry out disaster/emergency response operations.</li> <li>4. Understand the role of Public Health Professionals at recovery stage in disaster management.</li> <li>5. Recognize mitigation process in disaster management.</li> <li>6. Understand the National policies and guidelines on disaster management</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand disaster management cycle.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define disaster management 1.2 States the objectives of disaster management 1.3 Describe the disaster management cycle: • Preparedness • Response • Recovery • Mitigation	Define disaster management and draw the cycle showing all the components	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Develop disaster preparedness plan (rehearsal, awareness, building early warning signs, availability of equipment, procurement of relief materials)	Guide students to develop both long and short term plan for disaster preparedness	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Know steps involved in disaster/emergency preparedness						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

2.1 Explain emergency preparedness and its goal.	Explain emergency preparedness and its goal.	Bulletins Charts	Develop emergency preparedness plan	Complete the sample planning template and guide the students to develop the plan	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
2.2 Outline programs for emergency preparedness (developing plans, awareness creation, procurement of materials, etc.)	Explain the programs outlined.	Internet/Intranet Journals Lecture notes Pictorials Projector Text book				
<b>GENERAL OBJECTIVE: 3.0</b> Demonstrate how to carry out disaster/emergency response operations						
<b>Specific Learning Objectives(Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Explain emergency response.	The teacher explains emergency response and states the steps involved in emergency response.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Develop emergency response plan.	Complete the sample planning template and guide the students to develop the plan. Lead the students to camps, re-settlement sites.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
3.2 State the steps involved in an emergency response (aids, shelter, rehabilitation and reconstruction )						
<b>GENERAL OBJECTIVE: 4.0</b> Understand the roles of Public Health Professionals at recovery stage in disaster management						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Explain recovery in disaster management.	Explains recovery and its goal.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate how to carry out recovery exercise.	Teacher demonstrates how to carry out recovery activities.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
4.2 Outline the focus areas at recovery phase (temporary housing; public information; health and safety education; reconstruction; counseling programs; and economic impact studies, rebuilding and documentation of lessons learned).	Explains areas of concern at recovery phase and their importance.					
<b>GENERAL OBJECTIVE: 5.0</b> Recognize mitigation process in disaster management						

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Explain mitigation and its aim in relation to disaster management. 5.2 Describe mitigation strategy to be carried out in alleviating the impact of disaster to affected victims (building codes & zoning, vulnerability analysis, public education, land use policy)	Teacher explains mitigation and its aim. Also explains mitigation strategies in disaster management.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate mitigation action against disaster.	Teacher demonstrates how to construct building codes, and carry out vulnerability assessment, and health talk.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE 6.0:</b> Understand the National policies on disaster management						
<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Explain the term policy 6.2 Outline basic policies and guidelines on disaster management such as : <ul style="list-style-type: none"> <li>policy on establishment of disaster management agencies (NEMA, SEMA, LEMC, IDPC)</li> <li>disaster prevention policy</li> <li>National policy on environment</li> <li>Guidelines on disaster management, etc.</li> </ul> 6.3. State agencies involved in disaster management 6.4. Outline the roles of the agencies stated in 6.3.	Explains the term policy and outline some relevant policies and guidelines.  Identify relevant agencies and their roles.	Lecture notes  Books  Journals  Charts  Projector				Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Maternal and Child Health</b>						
<b>COURSE CODE: PHT 214</b>						
<b>DURATION:</b>	Lecture: - 30Hrs	Tutorial: Nil	Practical: -15Hrs	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is intended to provide the students with the basic knowledge and skills necessary to understand maternal and child health problems.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to understand Reproductive, Maternal & Child Health (RCH)						
<b>GENERAL OBJECTIVE: 1.0</b> Understand Reproductive, Maternal & Child Health (RCH)						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Explain the following: 1.1 MCH/RCH 1.2 Mother & child as one unit 1.3 Care of mother during pregnancy and lactation 1.4 Intranatal Period 1.5 Postnatal period 1.6 Care of children 1.7 Neonatal care 1.8 Care of infant 1.9 Feeding of Infants 1.10 Immunization 1.11 Care of pre-school child 1.12 Growth & development 1.13 School health 1.14 Adolescent health 1.15 Indicators of RCH services 1.16 Reproductive & Child Health (RCH) program & services 1.17 Postpartum program	The Teacher should explain MCH/RCH to the students including its different facets.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should carryout MCH services.	To guide the student through the process of MCH	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

1.18 Family welfare programs						
1.19 Child labor						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Microbiology and Parasitology</b>						
<b>COURSE CODE: STB 211</b>						
<b>DURATION:</b>	Lecture: -30Hrs	Tutorial: Nil	Practical: - 15Hrs	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is intended to equip the students with knowledge and skills on microorganisms and parasites of public health importance.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Understand the meaning of microbiology, microbes and their general characteristics and morphology.</li> <li>2. Understand the meaning of Protozoology.</li> <li>3. Understand the concept of Parasitology</li> <li>4. Understand the concept of Helminthology</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the meaning of microbiology, microbes and their general characteristics and morphology.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Discuss the following: 1.1 General characteristics of parasites 1.2 Classification & morphology 1.3 Diseases causation by parasites 1.4 Laboratory techniques used in the study & control of protozoan infections of public health importance.	The Teacher should explain parasites, their morphology and general characteristics, diseases caused by parasites and the laboratory techniques used to study and control. Protozoans of public health importance should be explained.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should carryout laboratory techniques and control protozoans of public health importance.	Teacher should guide the students to conduct the laboratory techniques.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the meaning of Protozoology						

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 General characteristics of protozoan 2.2 Classification & morphology of protozoan 2.3 Diseases causation by protozoan 2.4 Laboratory techniques used in the study & control of protozoan infections of public health importance.	The Teacher should explain protozoans, their characteristics, morphology, diseases caused by them and the laboratory techniques used to study and control them.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should explain protozoans, their characteristics, morphology and the diseases caused by them. They should also carryout laboratory techniques to study and control protozoans of public health importance.	Teacher should guide the students in accomplishing the task of laboratory analysis.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0</b> Understand the concept of Parasitology						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 General characteristics of parasites 3.2 Classification & morphology 3.3 Diseases causation by parasites 3.4 Laboratory techniques used in the study & control of protozoan infections of public health importance.	The Teacher should explain parasites, their characteristics, morphology, diseases caused by them and the laboratory techniques used to study and control them.	Projector Text book Internet/Intranet Lecture notes Charts Pictorials Laboratory Reagents Bulletins Charts Journals	Students should explain parasites, their characteristics, morphology and the diseases caused by them. They should also carryout laboratory techniques to study and control parasites of public health importance.	Teacher should guide the students in accomplishing the task of laboratory analysis.	Projector Text book Internet/Intranet Lecture notes Charts Pictorials Laboratory Reagents Bulletins Charts Journals	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 4.0</b> Understand the concept of Helminthology						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 General characteristics of helminthes 4.2 Classification & Morphology 4.3 Life cycle of helminthes	The Teacher should explain helminthes, their characteristics, morphology, diseases caused by them and the laboratory	Projector Text book Internet/Intranet Lecture notes Charts Pictorials	Students should explain helminthes, their characteristics, morphology and the diseases caused by them.	Teacher should guide the students in accomplishing the task of	Projector Text book Internet/Intranet Lecture notes Charts Pictorials	Continuous assessment Practical Assignment Examination

4.4 Natural history of diseases	techniques used to study and control them.	Laboratory Reagents Bulletins Charts Journals	They should also carryout laboratory techniques to study and control helminthes of public health importance.	laboratory analysis	Laboratory Reagents Bulletins Charts Journals	
4.5 Prevention & control of helminthes of public health importance						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Seminar</b>						
<b>COURSE CODE: PHT 216</b>						
<b>DURATION:</b>	Lecture: - 15Hrs	Tutorial:	Practical: - 15Hrs	Total: 30Hrs		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to equip students with the skills required in content development and presentation						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the format for seminar preparation						
2.0 Understand the approaches and methodology in presenting seminar paper						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the format for seminar preparation						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Outline and explain the format for developing seminar paper e.g.; Title, introduction, diagrams, body, summary, conclusion and recommendations including references.	Teachers should explain the outline and delivery guideline of a seminar.	Projector White boards Internet Lecture notes Charts Pictures Marker Handbills	Student should make an outline and deliver seminar.	Teacher should guide the development of fact and delivery of seminar	Projector White boards Internet Lecture notes Charts Pictures Marker Handbills	<ul style="list-style-type: none"> <li>• Oral presentation</li> <li>• Written presentation</li> <li>• Class participation</li> <li>• Good findings</li> </ul>
<b>GENERAL OBJECTIVE: 2.0</b> Understand the approaches and methodology in presenting seminar paper						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Explain various approaches and factors influencing effective presentation e.g. Dress code,	Teacher should explain the requirement of marking a good	Projector White boards Internet	Student should make a good presentation to audience.	Teacher should act as a guide and resource during the presentation.	<ul style="list-style-type: none"> <li>• Projector</li> <li>• Video/Audio devices</li> <li>• Models</li> </ul>	Continuous assessment Practical Assignment

time management, fluency, boldness, resourcefulness, etc.	presentation to the audience.	Lecture notes Charts Pictures Handbills Markers Posters			<ul style="list-style-type: none"> <li>Lecture notes</li> <li>White board</li> <li>Marker</li> <li>Internet</li> </ul>	Examination
---	-------------------------------	--	--	--	--	-------------

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN EPIDEMIOLOGY AND DISEASE CONTROL</b>						
<b>COURSE TITLE: Practice of Entrepreneurship</b>						
<b>COURSE CODE: EED 216</b>						
<b>DURATION:</b>	Lecture: - 15Hrs	Tutorial:	Practical: - 15Hrs	Total: 30 HRS		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> This course is designed to equip the student with necessary entrepreneurial skills for self-employment						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Know techniques for generating business ideas and the process of identifying and assessing business opportunities</li> <li>2. Know how to evaluate a business idea for developing an enterprise</li> <li>3. Know methods of product/service selection</li> <li>4. Understand the process and procedure for starting an Enterprise</li> <li>5. Know the operational techniques in managing an Enterprise</li> <li>6. Understand the various existing industries and support agencies in Nigeria</li> <li>7. Appreciate the role of commercial and development banks in small and medium scale industries development</li> <li>8. Understand the role of personal savings and portfolio investment in National Economic Development</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Know techniques for generating business ideas and the process of identifying and assessing business opportunities						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define business opportunity. 1.2 State the process of Exploring opportunities. 1.3 Identify business opportunities (SWOT Analysis)	Explain business opportunities and process of exploring them. Explain the process of product/service selection. Explain SWOT Analysis and how	Textbooks Journals. Projectors Notebooks Whiteboard Marker Internet	Identify business opportunities using SWOT Analysis.  Conduct market survey and select the most viable business venture.	Guide students to identify business opportunities using SWOT Analysis Guide students to conduct market survey to enable them select the most viable business venture. Demonstrate using appropriate application package, product	Computer  Text books,  Use of internet	Assignment Test Examination

1.4 State the process of conducting a market survey in order to establish demand/supply gap.	to identify business opportunities. Explain the process of conducting market survey and selecting a viable business venture.			selection, product tracking, order tracking etc. Set up students groups with the task of setting up a small business enterprise Invite a successful entrepreneur to give a talk. Make the student/group generate his/their viable business idea which would further be subjected to feasible business plan.	Relevant video clips.  Guest speakers from successful businesses.	
1.5 State the process of business idea generation.	Explain the process of business idea generation.					

**GENERAL OBJECTIVE: 2.0** Know how to evaluate a business idea for developing an enterprise

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
2.1 Define the concept of business plan. 2.2 Explain the process of preparing preliminary project proposal. 2.3 Explain the process of preparing a detailed business plan. 2.4 Conduct a model business plan on a selected venture.	Explain a business idea.  Explain the concept of business plan and project proposal.  Relate business idea to business plan and project proposal.  Describe the steps in preparing a model business plan.	Textbooks  Journey Projector	Prepare a preliminary project proposal. Set-up student groups with an initial start-up capital of N10,000.00 and the task of setting up a small business enterprise. Conduct a modest business plan on a selected venture. Present the plan to a panel of successful entrepreneur for assessment. Explore Internet for company profile, product catalog, product information, URL management. Conduct a model business plan on a selected venture.	Guide students in preparing a preliminary project proposal. Using the on-going business project guide students to complete a business plan and present it to a panel of successful entrepreneurs, the plan should consider sale forecast, time sheet analysis, employee tracking, loan amortization etc. Explore Internet for company profile, product catalog, product information, URL management. The written business plan should be assessed as part of continuous assessment.	Computer complete with accessories and D base Internet connection. Textbooks.	Test Examination

**GENERAL OBJECTIVE: 3.0** Know methods of product/service selection

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
---------------------------------------	---------------------	--------------------	---	---------------------	--------------------	------------

<p>3.1 Define product /service.</p> <p>3.2 Explain the nature and characteristics of product/ service.</p> <p>3.3 Explain product selection criteria.</p> <p>3.4 Identify key factors associated with product selection.</p> <ul style="list-style-type: none"> <li>• Infrastructure</li> <li>• Technology</li> <li>• Availability of raw material.</li> <li>• Government Policy/Regulation</li> </ul> <p>-Legal aspects of business.</p> <p>3.5 Explain Venture Idea Generation.</p> <p>3.6 Explain the steps involved in preliminary screening.</p> <p>3.7 Explain the different steps in preparing pre-feasibility study.</p> <p>3.8 Evaluate adequacy of infrastructural facilities for product selection.</p> <p>3.9 Identify the relevant technology available for the selected product.</p> <p>3.10 Evaluate sources and adequacy of raw materials for the selected product.</p> <p>3.11 Explain effects of government policy and regulations on the selected product.</p>	<p>Explain product selection, criteria and factors associated with selection.</p> <p>Explain venture idea generation.</p> <p>Explain steps involved in preliminary screening.</p> <p>Explain steps in preparing pre-feasibility study.</p> <p>Explain the adequacy of infrastructural facilities, relevant technology and adequacy of raw materials for the selected product.</p> <p>Explain effects of government policy and regulation as well as legal aspects of business on the selected product</p>	<p>Text Books Journals Publications. Projector</p>	<p>Analyze a given case in product selection.</p> <p>Select a product Prepare feasibility report on a modern business and evaluate the viability, methodology and CBA. (Cost Benefit Analysis)</p> <p>Generate venture idea on selected exportable product obtained from the web.</p>	<p>Guides students to analyze a case in product selection. Invite an Entrepreneur to speak on venture idea generation and product selection</p> <p>Guide students to prepare feasibility studies on a model institution based business and evaluate the viability, methodology and (Cost Benefit Analysis) CBA.</p> <p>Guide students to use web based information to generate venture idea on an exportable product.</p> <p>Organize visit to a small business outfit to understudy infrastructural facilities, available technology, sources and adequacy of raw materials, effect of Government policy and regulation and</p>	<p>Text Books Journals Publications. Projector</p>	<p>Test Examination</p>
---	---	--	---	--	--	-------------------------

3.12 Identify legal aspects of business in product selection.				legal aspects of the business.		
---	--	--	--	--------------------------------	--	--

**GENERAL OBJECTIVE: 4.0** Understand the process and procedure for starting an Enterprise

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
4.1 Outline the main features of the Companies and Allied Matters Act (CAMA) 1990 and the subsequent amendments. 4.2 Explain the functions of the Corporate Affairs Commission (CAC) under the Companies and Allied Matters Act 1990. 4.3 Explain the legal structure of business. 4.4 State factors to consider in naming a business. 4.5 Explain the procedure and requirements for registration of a business name. 4.6 Explain the procedure and requirements for incorporating a business. 4.7 Explain the reasons for the existence of registered business names and companies. 4.8 Identify various agencies responsible for issuance of licenses and permits.	Explain the main features of the CAMA with special reference to provisions relating to registration and incorporation business. Explain the functions of CAC. Explain the different legal forms of business. Explain reasons for and factors in naming a business. Explain Memorandum and articles of association and the procedure for incorporation of companies in Nigeria. Explain Licenses and permits and their issuing Agencies.	Textbooks CAMA Articles and Memo of Association Certificate of Incorporation	Prepare Memorandum and articles of Association for a hypothetical company. Identify documents required for incorporation. Register a business name.	Guide students to prepare Memorandum and Articles of Association of a hypothetical company. Show students necessary Incorporation documents. Visit CAC office nearest to you to familiarize with its operation. Guide students to register a hypothetical business name with the nearest CAC	Text books CAMA Internet (CAC Website)	Test Examination

**GENERAL OBJECTIVE: 5.0** Know the operational techniques in managing an Enterprise

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
5.1 Define management and a manager 5.2 Explain the functions of management and a manager.	Explain the functions, techniques and skills of management.	Text Books	Draw appropriate organogram for a small scale enterprise.	Guide student to draw an organ gram to suit the selected business venture.	Text books Sample	Test Examination

5.3 Explain management structure for an enterprise.	Draw a management structure to suit the viable project selected by students  Explain the techniques of the functional areas of management.  Explain principles of record keeping, auditing and taxation.	Specimen of financial records.  Cardboard  Marker.  Organogram	Identify communication process in the management of an enterprise.  Explain the function areas of business management, planning, organizing, etc.	Demonstrate the techniques and skills of communication process in the management of the selected business venture, using computer networking of not less than 3 computers.  Demonstrate, using appropriate application packages, techniques and skills of: Business planning Business positioning	Record books  Projector  Organogram	
5.4 Explain the communication process in the management of an enterprise.						
5.5 Explain the techniques and skills of: i. Planning ii. Organizing iii. Staffing iv. Leading						
Controlling						
5.6 Explain the basic techniques of marketing, production and financial management in an enterprise.						
5.7 Explain the principles of record keeping, auditing and taxation.						

**GENERAL OBJECTIVE: 6.0** Understand the various existing industries and support agencies in Nigeria

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
6.1 Explain various industry/support agencies. 6.2 Explain the types, and sources of materials used in both manufacturing and service Industries. 6.3 Explain the types and sources of plants and machinery used in small scale Industries. 6.4 Explain the various information and assistance for vital areas like finance, registration, project selection, training, marketing, research, quality control, raw materials, patent information etc.	Explain Industry, types and support agencies.  Explain the nature, types and sources of materials, machineries and information in enterprises.	Textbooks  Journals CD's/Film VCR	Identify types and source of plants and machineries used in small scale industries, nature and type of material inputs and information about market and financial assistance.  Prepare a report and share experience.	Guide students to visit websites to identify types and sources of machinery and plants, material inputs for small scale industries, information and assistance for finance market etc. Form groups and assign them out of class. Visit/experience in selected enterprise.	Computer and accessories with Internet connection.  Textbooks and journals.	Test Examination

6.5 Explain environmental factors associated with Industrial and economic development in Nigeria.				Groups to share experiences on the visit.		
<b>GENERAL OBJECTIVE: 7.0</b> Appreciate the role of commercial and development banks in small and medium scale industries development						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
a. Identify financial institutions involved in entrepreneurial development. 7.2 Explain the role of Banks and financial institutions in the creation and development of enterprises. 7.3 Explain government policy on financing small and medium enterprises. 7.4 Explain the role of microfinance (Formal and Informal) in financing enterprise. 7.5 Explain the role of capital markets in Financing enterprise.	Explain the role of financial institutions in entrepreneurial development. Explain the role of commercial and development Bank in the promotion and development of SME. Examine government policies on financing SME. List support agencies for SME's Nigeria- NEPC, IDCs, BOI, NACR DB etc. Explain government policy on financing SMEs.	Textbooks  Journals and other publications.	Identify sources of Finance to SME's and how to access their funds	Guide students to identify sources of finance for SME's .  Invite a Finance Expert to give a talk.  Guide students to develop healthy banking culture: Good customer relations regular lodgment bank reconciliation.	Projector  Computer Internet.	Test Examination
<b>GENERAL OBJECTIVE: 8.0 Understand the role of personal savings and portfolio investment in National Economic Development</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
8.1 Define the following; Income, expenditure and savings. 8.2 Explain the role of savings in starting and sustaining businesses 8.3 List the benefits of interest. 8.4 Explain personal Financial Planning and management.	Explain savings Explain how savings are channeled into productive ventures. Explain the benefits of interest Explain the role of budgeting in personal economics. Describe shopping habits.	Textbooks  Journals and other publications	Calculate interest rates.  Develop personal budget for one month.  Create a spreadsheet for a budget	Show various methods of computing interest. Guide students to develop a personal budget for one month. Guide students to create a	Textbooks Journals and other publications Computer.	Test Examination

8.5 Explain shopping habits.	Analyze portfolio investment.		Learn to save and invest in portfolio.	spreadsheet for a budget.		
8.6 Explain portfolio investment-shares, bonds, debentures.	Explain thrift societies and how they operate.			Invite a stock broker to give a talk.		

**PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY**

**COURSE TITLE: Public Health Planning and Management**

**COURSE CODE: PHT 221**

<b>DURATION:</b>	Lecture: - 35Hrs	Tutorial: 10Hrs	Practical: - Nil	Total: 45Hrs
------------------	------------------	-----------------	------------------	--------------

**CREDIT UNITS: 3**

**GOAL:** This course is intended to equip the students with knowledge and skills needed to manage and plan health and health interventions and programs

**GENERAL OBJECTIVE:** On completion of the course, the student should be able to explain the skill of health planning at different locations.

**GENERAL OBJECTIVE: 1.0** Understand the skills of Health Planning at different levels

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective(Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define some terms related to Health Planning 1.2 Explain Planning cycle 1.3 Discuss on the Management methods & techniques (PERT, CPM) 1.4 Expatiate on Personnel, financial & material management 1.5 Explain the Principles of planning of health services at district /PHC level 1.6 Demonstrate the activity planning for epidemics, floods refugees 1.7 Expatiate on Hospital management 1.8 Describe the Principles of Management	Teacher should explain some terms related to Health Planning, Planning Cycle And Management Methods	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Student should define relevant terms in Health Planning.  They should discuss on the methods of Management.	Teachers should guide the students in their explanations	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: First Aid</b>						
<b>COURSE CODE: PHT 222</b>						
<b>DURATION:</b>	Lecture: - 30Hrs	Tutorial: Nil	Practical: - 15Hrs	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> The course is designed to prepare the students to be able to identify and treat common minor ailments and make referrals where necessary.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Understand the procedure for identifying the common minor ailments						
2.0 Understand the treatment procedure of the common minor ailments.						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the procedure for identifying the common minor ailments						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Explain common minor ailments at community level. E.g. Burns, Fracture, STIs, CCDs, NCDs, etc.	Teachers should identify common minor ailments at the community.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should identify and treat common minor ailments in the community, e.g. bone fractures, snake bites, STIs, CCD, NCB, etc.	Teacher should guide the student to identify and treat common minor ailments in the community.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
1.2 Explain cases of snake bite, scorpion sting, Epilepsy, etc.						
<b>GENERAL OBJECTIVE: 2.0</b> Understand the treatment procedure of the common minor ailments.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Explain the treat of the ailments identified in 1.1 and 1.2 above.	Teacher should teach common ailment for the students to see the real example.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Demonstrate the common ailments in their community and treatment.	To guide the student in the treatment of minor ailment	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
2.2 Explain the treat of any emerging ailments as can be identified in the community.						

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Introduction to Public Health Pest Management</b>						
<b>COURSE CODE: EHT 211</b>						
<b>DURATION:</b>	Lecture: - 30Hrs	Tutorial: Nil	Practical: - 15Hrs	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> This course is designed to enable students acquire knowledge in Public Health Pest management						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Understand the concept of pest management on public Health</li> <li>2. Understand the methods of pests prevention (exclusion) in pest management and the limitations</li> <li>3. Understand the principles of pest management by eradication</li> <li>4. Explain Manipulation of the Environment as a Method of Pest Management</li> <li>5. Analyze Biological Control</li> </ol>						
<b>GENERAL OBJECTIVE:</b> 1.0 Understand the concept of pest management on public Health						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define the following: <ul style="list-style-type: none"> <li>• Pests</li> <li>• Pest Management</li> <li>• Public Health</li> </ul> 1.2 Discuss the types of Pests associated with the following. <ul style="list-style-type: none"> <li>• Field Crops</li> <li>• Stored Agricultural Produce</li> <li>• Human Body,</li> <li>• House-hold</li> <li>• Livestock.</li> </ul> 1.3 Explain the process of Pest identification	Teacher explains definition of Pest management  Teacher should identifies various parts of the pest	Projector Text book Internet Lecture notes Charts Pictures	Collect samples of all common pests of human body, stored product, livestock, house-hold, Field crops. Collect samples of common pests from -Human body, -Stored products, -Livestock, -House-hold, -Field crops, -Catering establishments etc.	Group Students into pairs for collection of samples.	Projector Video/Audio devices Models	Assignment Test Examination
1.4 Discuss the importance of Pest Management on Public Health 1.5 Classify Pests according to target organism and nature of damage. 1.6 Discuss different methods of Pest Classification as follows: <ul style="list-style-type: none"> <li>• By host</li> </ul>						

<ul style="list-style-type: none"> <li>• Biological classification</li> <li>• Nature of damage</li> <li>• Geography</li> </ul> <p>1.7 Classify all common Pests according to the following:</p> <ul style="list-style-type: none"> <li>• Human body,</li> <li>• Stored products,</li> <li>• Livestock,</li> <li>• House-hold,</li> <li>• Field crops,</li> <li>• Catering establishments etc.</li> </ul>						
<b>GENERAL OBJECTIVE: 2.0</b> Understand the methods of pests prevention techniques (exclusion) in pest management and the limitations						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Discuss the various methods of Pest Prevention techniques (Exclusion) as follow: <ul style="list-style-type: none"> <li>• Quantitative.</li> <li>• Seed and Plant certification</li> <li>• Treatment of Propagative Organs.</li> <li>• Selection of Disease free or Elimination of Infective Organs.</li> <li>• Sealing and securing all possible points of entry into building.</li> <li>• Minimize possible traffic routes for insects and critters.</li> <li>• Keeping any organic matter away from the exterior of the building.</li> <li>• Removing inviting food, water, nesting and breeding sources.</li> </ul>	The Teacher should describe the various methods of Exclusion  Also explain the limits of each method	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Identify local and modern methods of pest prevention.	Moderate students' activities.	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Test  Examination
<b>GENERAL OBJECTIVE: 3.0</b> Understand eradication as a method of pest management control						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Discuss eradication as a pest management controls under the following: <ul style="list-style-type: none"> <li>• Rouging of Diseased individual</li> </ul>	The Teacher should explain Principles of Pest Management by	Projector Text book Internet	Express eradication in terms of effect on eco-system preservation.	The Teacher should ask the student questions.	Projector Text book Internet Lecture notes	Test  Examination

<ul style="list-style-type: none"> <li>• Eradicating Campaigns</li> <li>• Destruction of Suspects</li> <li>• Destruction of diseased parts of Suspects</li> <li>• Disinfestations</li> <li>• Treatment of Refuse.</li> </ul>	Eradication and also describe the various methods of Eradication.	Lecture notes Charts Pictures White board Marker			Charts Pictures White board Marker	Assignment
<b>GENERAL OBJECTIVE: 4.0</b> Explain Manipulation of the Environment as a Method of Pest Management						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Explain Manipulation of the Environment as a Method of Pest Management as follows: <ul style="list-style-type: none"> <li>• selection of Sites and Changing of planting dates</li> <li>• Significance of timely interference/destruction with monocular agents</li> <li>• Use of chemicals as protectants.</li> </ul>	The Teacher should discuss manipulation of the environment as a method of pest management	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Organize a visit to a nearby farm to observe the effects of pest.	Teacher should moderate students' activities.	Projector Text book Internet Lecture notes Charts Pictures Tutorials	Assignment Quiz Test Examination
<b>GENERAL OBJECTIVE: 5.0</b> Analyze biological Control						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Analyze biological Control such as <ul style="list-style-type: none"> <li>• History of biological control</li> <li>• Various methods of biological control of pest – Use of Predator, Pathogen and Parasite</li> <li>• Characteristics of effective natural enemies/predators</li> <li>• describe significant success in the use of Control of Pest.</li> <li>• Advantages and disadvantages</li> </ul>	The Teacher should explain the term biological control, its methods and advantage and disadvantage	Projection Textbook Internet Chart Lecture notes Pictures Tutorial	Demonstrate biological control of pests.	Guide students to demonstrate biological control of pests.	Projection Textbook Internet Chart Lecture notes Pictures Tutorial	Test Examination

**PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY**

<b>COURSE TITLE: Public/ Environmental Health Laws</b>						
<b>COURSE CODE: EHT 223</b>						
<b>DURATION:</b>	Lecture: - 30Hrs	Tutorial: Nil	Practical: - 15Hrs	Total: 45Hrs		
<b>CREDIT UNITS: 3</b>						
<b>GOAL:</b> This Course is designed to enable the students have knowledge of Public Health Laws in Nigeria.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
<ol style="list-style-type: none"> <li>1. Understand the National Legal system.</li> <li>2. Understand the origin of National Public Health Law.</li> <li>3. Know the procedure for detection/Abatement of nuisance</li> <li>4. Know Court Procedure.</li> <li>5. Know Public Health Laws.</li> <li>6. Understand Public Health Ethics, its history, importance and application</li> </ol>						
<b>GENERAL OBJECTIVE: 1.0</b> Understand the National Legal System						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define Law, Legal system, Constitution, Court, etc. 1.2 Explain the Nature of Law. 1.3 Enumerate Sources of Law. 1.4 Discuss the National Legal system.	The teacher explains, discusses and asks questions.	Projector Text Books Internet Lecture Note, Charts Constitution	Explain the National Legal System.	The Teacher should guide students classwork	Projector Text Books Internet Lecture Note Charts Constitution	Test  Assignment  Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand the Origin of National Public Health Laws						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Define Public Health Law 2.2 Explain Public Health Law. 2.3 Outline the history of International Public health Laws. 2.4 Outline the history of National Public health Laws 2.5 Discuss the scope of public health laws: -Public health laws of Northern Nigeria of 1963	The teacher Explain, ask questions	Projector Text Books Internet Lecture Note Charts Pictures Tutorial.	Define public Health Law, implementation and challenges.	The Teacher should engage students in classwork.	Projector Text Books Internet Lecture Note, Charts Constitution	Test  Assignment  Examination

- Public health laws of Western Nigeria of 1958 -Public health laws of Eastern Nigeria.						
<b>GENERAL OBJECTIVE: 3.0</b> Know the procedure for detection/Abatement of nuisance						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
3.1 Define Nuisance and Abatement Notice. 3.2 Describe the procedure for detecting nuisances. • Inspection • Detection • Awareness Creation 3.3 Describe the procedure for Abating nuisances. • Serving of Abatement notice • Verification • Service of court summons • Prosecution 3.4 Explain procedure for documentation.	The teacher describes the procedures for abating nuisance.	Projector  Text Books  Internet  Lecture Note,  Charts  Internet	3.1 Demonstrate Detect and abate nuisances.	Demonstrate how to detect and abate nuisances	Premises for inspection Writing material. Projector Text Books Internet Lecture Note, Charts Internet	Assignment  Test  Examination
<b>GENERAL OBJECTIVE: 4.0</b> Know Court Procedures						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
4.1 Outline hierarchy of courts in Nigeria. • Customary/Area/Sharia Court • Upper Customary/Area/Sharia Court • Magistrate Court • State High court • Federal High Court. • Special Courts e.g. Tribunals, Industrial	Teacher should explain the hierarchy of courts in Nigeria, their compositions and fractions.  He should explain the produce for filing a case and appeal	Projector Text Books Internet Lecture Notes Charts Pictures Whiteboard Marker	Students should explain the court hierarchy, their compositions and functions.  They should also explain the procedure for filing and appealing of a case.	Teacher should guide the student in coming up with the hierarchy and appealing procedure in court.	Projector Text Books Internet Lecture Notes Charts Pictures Whiteboard Marker	Test  Assignment  Examination

<ul style="list-style-type: none"> <li>• Appeal Court</li> <li>• Supreme.</li> </ul> <p>4.2 Explain the Composition of Courts,</p> <p>4.3 State the functions of Judicial officers: - e.g.</p> <p>i. Court bailiff.</p> <p>i. Court Registrar.</p> <p>i. President/Members (Customary/Alkali courts.</p> <p>7. Magistrates.</p> <p>7. Chief Judge</p> <p>i. President, Court of Appeal</p> <p>i. Chief Justice of Nigeria</p> <p>i. Attorney/Solicitor General.</p> <p>4.3 State the procedure for filling of case.</p> <p>4.4 Explain the procedure for appearance in court.</p> <p>4.5 Explain Injunction, Ruling and Judgment.</p> <p>4.6 Explain the process of Appeal</p> <p>4.7 Explain court orders:</p> <ul style="list-style-type: none"> <li>• Nuisance order</li> <li>• Prohibition Order</li> <li>• Locus inquest</li> <li>• Order of mandamus, etc.</li> </ul>						
---	--	--	--	--	--	--

**GENERAL OBJECTIVE: 5.0** Know Public Health Laws

<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
5.1 Define <ul style="list-style-type: none"> <li>a. Adult</li> <li>b. Child</li> <li>c. Competent Council</li> <li>d. Milk shop</li> <li>e. Health Officer</li> </ul>	Teacher should define relevant terms used in Public Health Law and the process of making the law.	Text Books Internet Public Health Edicts Constitution Court	Students should define the relevant terms used in Public Health Law.	Teacher to guide and appraise the students.	Text Books Internet Public Health Edicts Constitution Court	Assignment  Test  Examination

f. Medical Officer of Health g. Appropriate Medical officer of health. 5.2 Explain the terms: a. Bye Law b. Adoptive bye law c. Applicable bye law d. State Laws/Edicts e. National Law/ Decree 5.3 Explain the process of making Public health Law as applicable to 4.1 above. 5.4 Describe Delegation of Authority.	He should also describe delegation of authority/power.		They should describe the act of delegation of authority/power.			
--	--	--	--	--	--	--

**GENERAL OBJECTIVE: 6.0** Understand Public Health Ethics, its history, importance and application

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
6.1 Define Public Health Ethics 6.2 Explain the history of Public Health Ethics 6.3 Discuss the importance and application of Public Health Ethics 6.4 Outline specific uniform and practical ethical conducts	Teacher should explain Public Health Ethics, its history and importance.	Text Books Internet Public Health Edicts Constitution Court White board Marker	Students should explain Public Health Ethics, history and importance.	Teacher should Guide the Class activity by students	Text Books Internet Public Health Edicts Constitution Court White board Marker	Assignment Test Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Global and Contemporary Health Issues</b>						
<b>COURSE CODE: PHT 225</b>						
<b>DURATION:</b>	Lecture: - 20Hrs	Tutorial: Nil	Practical: - 10Hrs	Total: 30Hrs		
<b>CREDIT UNITS: 2</b>						
<b>GOAL:</b> The course is intended to provide the students with the basic knowledge and skills needed to understand the global nature of health problems and international cooperation, as well as the national and health agencies involved in health care delivery						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						

1.0 Define international/global health and explain the origin as well as the importance of international health.						
2.0 Understand local, national and international health agencies including NGOS and their functions in health care delivery.						
3.0 Understand disease notification and notifiable diseases of international concern.						
4.0 Understand International Health Regulation.						
5.0 Understand Disease Certification Protocols for disease of international concern.						
<b>GENERAL OBJECTIVE: 1.0</b> Define international/global health and explain the origin as well as the importance of international health.						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Explain the following: 1.1 International and global health agencies 1.2 Origins of international and global health 1.3 Importance of international and global health	Teacher to define International/global/geographic medicine. Teacher should explain the origin of international or global health and its importance to health care.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should explain International Health/Global Health/Geographic Medicine and explain its origin & importance to health care delivery.	Guide the students in arriving at a concise definition, origin and importance of International Health.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 2.0</b> Understand local, national and international health agencies including NGOS and their functions in health care delivery						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
Discuss the following: 2.1 Local health agencies and their functions 2.2 National health agencies and their functions - NAFDAC, NESREA, etc. 2.3 International health agencies and their functions: - WHO, UNICEF, DFID, PAHO, etc. 2.4 NGOS and their functions	Guide the students in understanding the agencies fully.  Specify the functions of the agencies to the students	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Participate in volunteer activities on some local or international agencies	Guide students' conduct while volunteering	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>GENERAL OBJECTIVE: 3.0</b> Understand disease notification and notifiable diseases of international concern						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

3.1 Explain Disease Notification	Teacher should explain the diseases of international concern and notification protocols with particular examples to Polio, Covid-19, etc	Bulletins, Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Explain Disease Notification and notifiable diseases of international concern	Teacher should explain the diseases of international concern and notification protocols with particular examples to Polio, Covid-19, etc.	Bulletins, Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
3.2 List notifiable diseases of international concern						

**GENERAL OBJECTIVE: 4.0** Understand International Health Regulation..

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
4.1 Explain International Health Regulation	Teacher should explain International Health Regulation and how it can be used to achieve health in populations. Relevant International Health Regulation articles should also be explained to the students	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Understand International Health Regulation	The Teacher should discuss the importance of International	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

**GENERAL OBJECTIVE 5.0** Understanding Disease Certification Protocols for disease of international concern

Specific Learning Objectives (Theory)	Teachers Activities	Learning Resources	Specific Learning Objective (Practical)	Teachers Activities	Learning Resources	Evaluation
Explain disease certification protocols for disease of international concern	Teacher should explain the disease certification procedure with particular reference to some of the notifiable diseases like polio, cholera, yellow fever, covid-19, SARS, etc.	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Teacher should explain the disease certification procedure with particular reference to some of the notifiable diseases like polio, cholera, yellow fever, covid-19, SARS, etc.	Explain disease certification protocols for disease of international concern	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination

<b>PROGRAMME: NATIONAL DIPLOMA (ND) PUBLIC HEALTH TECHNOLOGY</b>					
<b>COURSE TITLE: HEALTH ECONOMICS</b>					
<b>COURSE CODE: EHT 315</b>					
<b>DURATION:</b>	Lecture: - I hr	Tutorial: -	Practical: -	Total: 15 hrs	
<b>CREDIT UNITS: 1</b>					

<b>GOAL:</b> This course is designed to enable the student apply appropriate economics principles in the planning and administrating of environmental health services in the community.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Know the fundamental principles of environmental health economics.						
2.0 Understand the basic economics concept and model in environmental health.						
3.0 Know the concept of economic cost of health.						
<b>PROGRAMME: HIGHER NATIONAL DIPLOMA IN ENVIRONMENTAL HEALTH TECHNOLOGY</b>						
<b>COURSE: HEALTH ECONOMIC: Course code: 315 Contact Hours: 15</b>						
<b>COURSE SPECIFICATION: Theoretical Content: Practical Content:</b>						
<b>GENERAL OBJECTIVE: 1.0</b> Know the fundamental principles of environmental health economics						
<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Define i. Economics ii. Economic goods and services iii. Economic wants iv. Opportunity cost v. Scarcity, demand and supply vi. Environmental health economics 1.2 Explain the following: i. National economic goals ii. Role of consumer in the capitalist economy iii. Role of Government in economic system. iv. Budgetary procedures v. National income and distribution vi. Approaches to financial planning. vii. Consumer health viii. Environmental health policy and resource allocation	<ul style="list-style-type: none"> <li>• Lecture</li> <li>• Discuss</li> <li>• Brainstorm</li> </ul>	<ul style="list-style-type: none"> <li>• Lecture notes</li> <li>• Pictures</li> <li>• Charts</li> <li>• Books</li> <li>• Journals</li> <li>• Computer</li> <li>• Projector</li> <li>• DVD/Multimedia Player</li> </ul>		<ul style="list-style-type: none"> <li>• Locate</li> <li>• Guide</li> <li>• Demonstrate</li> </ul>	<ul style="list-style-type: none"> <li>• Projector</li> <li>• Charts</li> </ul>	<ul style="list-style-type: none"> <li>• Assignment</li> <li>• Class Test</li> <li>• Presentation</li> <li>• Examination</li> </ul>

ix. Politics of health care and environmental health services.						
<b>GENERAL OBJECTIVE: 2.0 Understand the basic economic concept and model in environmental health</b>						
<b>Specific Learning Objectives (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objectives (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
2.1 Discuss the determinants of health. 2.2 Explain the concept of private public sector mix in environmental health service delivery in Nigeria and its implications for delivery and cost. 2.3 Explain the basic concept of cost benefit and cost effectiveness analysis in environmental health. 2.4 Explain the basic concept of health insurance/social insurance. 2.5 Explain the impact of economic measures/changes in environmental health. 2.6 Identify the constraints of environmental health financing in the country. 2.7 Analyse the concept of health care financing. 2.8 Explain the methods of mobilizing communities for self-financial and sustainable environmental health projects. 2.9 Describe the concept of demand and supply in environmental health services. 2.11 Describe the concept of privatization of environmental health services.	Lecture Discuss Brainstorm	Lecture notes Pictures Charts Books Journals Computer Projector DVD/Multimedia Player		Locate Guide Demonstrate	Projector Charts	Assignment Class Test Presentation Examination
<b>GENERAL OBJECTIVE: 3.0 Know the concept of economic cost of health.</b>						
<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objectives</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>

3.1 Explain the concept of opportunity cost. 3.2 Discuss the various determinants of health. 3.3 Explain the factors that determine the value placed on health by various persons and groups. 3.4 State the actual cost of health.	Lecture Discuss Brainstorm	Lecture notes, Pictures, Charts, Books, Journals, Computer, Projector, DVD/ Multimedia Player		Locate Guide Demonstrate	Projector Charts	Assignment Class Test Presentation Examination
---	----------------------------------	---	--	--------------------------------	---------------------	---

<b>PROGRAMME: NATIONAL DIPLOMA (ND) IN PUBLIC HEALTH TECHNOLOGY</b>						
<b>COURSE TITLE: Project</b>						
<b>COURSE CODE: EHT 227</b>						
<b>DURATION:</b>	Lecture: - 1.5 (20Hrs)	Tutorial: 0.5 (10Hrs)	Practical: - 4 (60Hrs)	Total: 6 (90Hrs)		
<b>CREDIT UNITS: 6</b>						
<b>GOAL:</b> This project provides the student with an opportunity to investigate and report on a specific aspect of Public Health Programme and Projects.						
<b>GENERAL OBJECTIVE:</b> On completion of the course, the student should be able to:						
1.0 Review current literature pertaining to a specific issue or problem 2.0 Assess the extent of the issue or problem in Public Health practice 3.0 Gather and analyse information to identify potential solutions and reach a conclusion 4.0 Produce a final report on the project						
<b>General Objective: 1.0</b> Review current literature pertaining to a specific issue or problem						
<b>Specific Learning Objective (Theory)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Specific Learning Objective (Practical)</b>	<b>Teachers Activities</b>	<b>Learning Resources</b>	<b>Evaluation</b>
1.1 Choose under guidance, an appropriate topic for investigation. 1.2 Review current literature to relevant to choice of topic.	Guide students in selecting a suitable topic. Provide guidance in finding sources	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Students should select a suitable topic and produce a plan of action setting out key targets to meet over the semester  Review current literature to relevant to choice of topic	Support students in planning their activities Support students in their research. Provide guidance in finding appropriate sources	Bulletins Charts Internet/Intranet Journals Lecture notes Pictorials Projector Text book	Continuous assessment Practical Assignment Examination
<b>General Objective: 2.0</b> Assess the extent of the issue or problem in Public Health practice						
2.1. Investigate the issue or problem in Public Health practice	Support students in their investigation	Bulletins Charts Internet/Intranet Journals Lecture notes	Students should identify required information	Guide students in determining the most appropriate data collection strategy for the specific issue	Bulletins Charts Internet/Intranet Journals Lecture notes	Continuous assessment Practical Assignment Examination

		Pictorials Projector Text book	and appropriate methods of data collection		Pictorials Projector Text book	
<b>General Objective: 3.0</b> Gather and analyse information to identify potential solutions and reach a conclusion						
3.1. Collect information according to agreed methods.	Support students in data collection	Textbooks Notes Data tools	Analyse the data collected in order to reach a conclusion	Supervise students in data analysis	Textbooks Notes Data sheets Statistical packages	Project Defence
<b>General Objective: 4.0</b> Produce a final report on the project						
4.1. Produce final written report on project	Guide students in the production of their written report	Internet Notes Textbooks Journals	Students should produce a final report on their project	Guide students in the production of their written report	Internet Notes Textbooks	Project Defence

## LIST OF MINIMUM RESOURCES FOR NATIONAL DIPLOMA IN PUBLIC HEALTH

### A. LIST OF PHYSICAL FACILITIES

Programme	Laboratory	Studio/Drawing Room and Other
National Diploma (ND) in Public Health Technology	Basic Science (Biology and Chemistry)	1. Audio Visual Studio 2. Museum 3. Side laboratory with a minimum of disease detection and screening equipment based on their objectives of the training

### LIST OF EQUIPMENT IN AUDIO VISUAL STUDIO

S/NO	EQUIPMENT	QUANTITY REQUIRED
1	Video Recorder	1
2	Overhead projector	1
3	Film projector	1
4	Public Address System	1
5	Television set	1
6	Camera	1
7	Computer System	5
8	DVD players	1
9	Microphones	5
10	Scanner	1

### B. HUMAN RESOURCES

#### Lecturers/Instructors Minimum Qualification

#### 1. LECTURER (FIRST DEGREE)

(This is for Licensed Environmental Health Officer)

- Bachelor of Science/Technology (B.Sc/ B. Tech) in Public Health
- Bachelor of Environmental Health Science (B. EHS)/Bachelor of Science (B.Sc) Environmental Health
- Bachelor of Science (B.Sc) Health Education
- Bachelor of Science (B.Sc) Occupational Health
- Bachelor of Science (B.Sc) Environmental Management

#### LECTURER (PGD)

(This is for Licensed Environmental Health Officer with Higher National Diploma (HND) in Environmental Health)

- Post Graduate Diploma (PGD) Public Health
- Post Graduate Diploma (PGD) Environmental Health
- Post Graduate Diploma (PGD) in Education
- Post Graduate Diploma (PGD) Public Health/Epidemiology
- Post Graduate Diploma (PGD) Environmental Management

#### 3. SENIOR LECTURER

(This is for Licensed Environmental Health Officer with either the Qualification in 1 or 2 above)

- Master of Science (M.Sc) in Public Health plus Mphil qualification
- Master of Science (M.Sc) in Environmental Health

### Technical Staff Minimum Qualification for Laboratory/Workshop/Studio/Museum

- Technologist – HND or equivalent in Public Health Technology
- Technologist – HND or equivalent in Epidemiology and Disease Control
- Technologist – HND or equivalent in Environmental Health Technology
- Technician – ND in Epidemiology and Disease Control
- Technician – ND in Public Health Technology
- Technician – ND in Environmental Health Technology
- Laboratory Assistant – At least SSCE

### For National Diploma

4 no. Core Lecturers as follows:

1 no. Senior Lecturer and above

1 no. Lecturer II

1 no. Lecturer III/Assistant Lecturer

### LIST OF CONTRIBUTORS

S/NO	NAME	ADDRESS	DESIGNATION	E-MAIL/TELEPHONE
1	Dr. Yakubu Baba Mohammed	EHORECON	REGISTRAR	mohammedbaba37@yahoo.com
2	Prof. Agwu N. Amadi	FUTO		professoramadi@gmail.com
3	Prof. E. Ofoezie Emmanuel	OAU Ife		emmaofoezie@gmail.com
4	Prof. G.R.E.E. Ana	U. I		agree2000@yahoo.com
5	Prof. Henry Sawyer	KWASU		hsawyerr@gmail.com
6	Prof. Ado Bello	TCHT Kano		adobello2@yahoo.com
7	Prof. Shehu Adaranja	UNILORIN		+2348035778798
8	Dr. M.C. Nwachukwu	NAU		mnwachukwu4691@gmail.com
9	Dr. Oladinjoye Abiodun			
10	Dr. Hamisu Maimusa	CHST, Nguru		+2348063386561
11	Dr. Toma Reng	CHST, Zawan		+2348036177931
12	Dr. Seni Barka	CHST, Kaltungo		mennabarka@gmail.com
13	Dr. A.N. Arinola	Suweraj Asso. Ibadan		adebayoarinola03@gmail.com
14	Dr. S. A. Akingbehin	LSPHCB, Yaba		sam.akin_akingbehin@yahoo.co
15	Dr. Bashir Bala Getso	School of Hygiene, Kano	Principal	66getso744@gmail.com
16	Mustapha Yunusa	School of Hygiene, Kano	HOD Public Health	myunusa1@yahoo.com
17	Bala Usman	CHST, Funtua		+2348036848221
18	Yusuf Bello Yakubu	NBTE		+2348036527689
19	Barr. Emmanuel Eyo	CHST, Calabar		+2348050730624
20	Zachariyan Aliyu	PHCDA, Niger State		+2348035880490
21	Isah Adamu	EHORECON		ardoisahadamu@gmail.com
22	Omonayajo Nathaniel	EHORECON	HOD EDTR	nathomonayajo@yahoo.com
23	Celestine O.Onah	EHORECON	Division Head Inst.	celeonah@yahoo.com
24	Jamabo Rosemary	EHORECON	ACEHO	osaki4life12@yahoo.com
25	Alum Viola O.	EHORECON	ACEHO	alumviola@gmail.com
26	IvuomaUchechiOnwubiko	EHORECON	SEHO	ihuomaonwubiko@gmail.com
27	Kucheli Augustine Ebisike	EHORECON	SEHO	kuchelitarfa@gmail.com
28	Charity Abbas	EHORECON	HEHO	charity@yahoo.com
29	OhagiChiaka	EHORECON	EHO	ellaohagi@ymail.com