



MAST

MINIMUM ACADEMIC STANDARD REQUIREMENT
FOR PUBLIC HEALTH PRACTITIONERS

PROMOTING AND SUSTAINING ACADEMIC EXCELLENCE IN PUBLIC
HEALTH EDUCATION AND PRACTICE

PUBLIC HEALTH PRACTITIONERS COUNCIL OF NIGERIA

(A SUBSIDIARY OF THE NATIONAL ASSOCIATION OF PUBLIC HEALTH PRACTITIONERS OF NIGERIA)

Established under **Decree 1, 1990**, Law of the Federal Republic of Nigeria **RC: 121726**

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NAPHCN

ABOUT US

Public Health Practitioners Council of Nigeria (Practitioners' Registration Board) is an educational, research, umbrella body and standardization organization set up for Public Health Practitioners. The organization was registered and incorporated under the Decree Act 1, 1990 in Nigeria to promote Public Health practices, professionalism, and research promotion and to develop, establish and maintain standard of qualification in the field of Public Health Medicine.

MISSION

To protect and improve the health of the people of Nigeria and the world at large.

Through interdisciplinary research, we seek to understand the forces that affect public health and the delivery of health services.

We prepare the next generation of public health practitioners, health care managers and scholars.

Collaborating with government agencies and other partners, we develop solutions to current and emerging public health problems.

VISSION

"To be a leader in public health research and education with local impact and global significance"

VALUES

The Public Health Council of Nigeria has identified four core values that guide our decisions and operations. These are:

EQUITY

We believe in the fundamental fairness of a healthy world. Each person should have an environment that optimizes health, access to affordable and quality health care. Be aware of personal choices for improving health and opportunities to help improve the health of the immediate environment.

ETHICS

We maintain high level of academic and scientific integrity. Conduct research that protects the rights and welfare of all study participants and create an inclusive environment that supports our faculty, staff, students and constituents.

EXCELLENCE

We pursue innovative research that is scientifically rigorous and relevant. We are committed to providing a high quality learning experience and the tools to enable students to meet future challenges. We value dedicated services and leadership that helps individual and communities live healthier lives.

DIVERSITY

We celebrate the richness that diversity brings to our society and work to create a welcoming culture that respects all forms of differences. We are committed to increasing the diversity of our students' and staff faculty and to equip all our graduate to contribute effectively to a diverse public health workforce.

AIMS AND OBJECTIVES

- ❖ To promote public health education in Nigeria
- ❖ Equipping the training centers with approved syllabus across the Country
- ❖ To develop, establish and maintain standard of qualification for the profession of public health
- ❖ To promote the professional ethics and conducts
- ❖ To conduct professional examination in the various field of public health medicine
- ❖ To upgrade the knowledge of practitioners through training and retraining of members
- ❖ To organize seminars, conferences and symposia for the members and the general public
- ❖ To collaborate with various training institutions in education and certification of practitioners

WHAT IS PUBLIC HEALTH

Public health promotes and protects the health of people and the communities where they live, learn, work and play.

While a doctor treats people who are sick, those of us working in this field try to prevent people from getting sick or injured in the first place. We also promote wellness by encouraging healthy behaviours.

From conducting scientific research to education, people in the public health field work to assure the conditions in which people can be healthy such as vaccination to prevent the spread or occurrence a particular disease for example poliomyelitis, or educating people about the risks of excessive alcohol consumption and so on.

Public health sets safety standards to protect workers and develop school nutrition programmes to ensure that children have access to healthy food. Public health works to track disease epidemic, prevent injuries and enlighten on why some of us are more likely to suffer from poor health than others.

The many facets of Public Health Technology include speaking out for laws that promote smoke-free indoor air and seatbelts, encouraging healthy practices and giving science-based solutions to problems.

The core areas of Public Health are;

- ❖ Public Health Information, Education & Communication
- ❖ Epidemiology, Disease Control & Surveillance
- ❖ Environmental Health/Occupational Health
- ❖ Human Nutrition
- ❖ Health Systems Management & Administration
- ❖ Community/Family and Reproductive Health

PUBLIC HEALTH TECHNOLOGY

Public Health is the art and science of preventing disease, prolonging life and promoting health through the organized efforts of the society. Simply, Public Health promotes and protects the health of people and the communities where they live, learn, work and play. Public health professionals engage in activities which advocate for and promote policies that encourage healthy lifestyles, research, detection and prevention of injuries and control of diseases.

Public health practice is concerned with the process of mobilizing Local, State, National and International resources to assure the conditions in which all people can be healthy and access health care facilities timely when needed. Public health can equally be described as what we as a society do collectively to ensure that the environment in which we live, learn, work and play can support good health and wellness necessary for the enjoyment of life and useful productive activities.

Public health has to do with timely identification of risk factors to the optimal health status of the population. Empowerment of population and health sector thereof at risk of morbidity and premature death to assume responsibility for the promotion and maintenance of optimal health through the purposive provision, efficient management and effective implementation of technologies and services.

Many of the Public Health workers' duties are the health issues that confront our daily lives like protecting our drinking water, maintaining a clean environment and waste disposal, ensuring car and road safety, providing Vaccinations against diseases and epidemics, safety food etc.

At the NAPHCN, curriculum is built on the major tenets of public health science and in accordance with the Basic Academical Professional Standard (BAPS). Our curriculum is drawn from a vast spectrum of disciplines and knowledge area including but not limited to epidemiology, biostatistics, social sciences, basic and applied sciences, humanities, physiology and anatomy, community medicine, law and ethics, computer science and application, management, pharmacology etc.

We have an excellent faculty that are all health practitioners. Through a combination of practical experience and academic rigour. Our programmes in Public Health prepare students and equip them with knowledge and skills to:

- ❖ Assess the health needs of diverse communities/populations
- ❖ Plan, implement and evaluate collaborative health promotion and diseases prevention programmes
- ❖ Assess the health needs of diverse communities/population
- ❖ Recommend and execute health intervention programmes to address specific community health needs
- ❖ Facilitate and build local community capacity to solve public problems through partnership and collaboration with other agencies and so on

PROGRAMME OF STUDY (COLLEGE/SCHOOL OF HEALTH TECHNOLOGY)

National Association of Public Health Practitioners of Nigeria is an umbrella body for all the practitioners. Our training is on:

Public Health Assistants

Public Health Technicians

Public Health Technologists

PUBLIC HEALTH ASSISTANT

SYLLABUS FOR CERTIFICATE IN PUBLIC HEALTH ASSISTANT (C.H.A)

This is a two-year Certificate course

GOAL: The candidate during and after the training should be able to provide care to patients/clients in hospitals and other medical settings. Health assistants work closely with qualified professional and the patients/clients to ensure their comfort and safety.

RESPONSIBILITIES:

- ❖ Taking blood samples: health assistants may perform minor invasive procedures like taking of blood samples and delivering same to the appropriate place unless instructed otherwise.
- ❖ Mobility assistance: health care assistants help patients who has trouble with mobility. They oversee their safe transitions from place to place. They also help discharged patients to their point of pick up within the hospital or medical settings even though the person can ambulate freely, except instructed otherwise.
- ❖ Replacing linens: health care assistants are responsible for ensuring the comfort of patient/clients thus replacing the bed linen with clean and sterilized linen even if the linen is not soiled.
- ❖ Bed bath or bathroom shower: health assistants help patients/clients who cannot shower on their own. They also help bed bath patients in coma or paralyzed (quadriplegia, hemiplegia or paraplegia),
- ❖ Equipment sterilization: health assistants are responsible for the sterilization of all the equipment used in the medical facilities, it must also be properly stored to avoid contamination.
- ❖ Vital signs checking: monitoring and recording of vital signs is the responsibility of a health assistant
- ❖ Lab processing: if a medical professional orders lab, it is the duty of the health assistant to see that all labs are processed and that the professional is notified of the results.
- ❖ Feeding assistance: health assistants help patients that are unable to feed themselves.
- ❖ Patient monitoring: health assistants continually monitor and record changes in patient's health and communicate with superiors to address changes in patient's health status

SKILLS

- ❖ Sensitivity and Empathy
- ❖ Observation skills
- ❖ Willingness to perform personal care tasks
- ❖ Ability to follow instructions strictly
- ❖ Positivity and cheerfulness

YEAR ONE

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PSY 101	GENERAL PSYCHOLOGY	3
2	BIO 101	GENERAL BIOLOGY	3
3	ANA 102	ANATOMY AND PHYSIOLOGY 1	3
4	CSC 106	INTRODUCTION TO COMPUTER	3
5	ANA 103	ANATOMY AND PHYSIOLOGY (practical)1	2
6	ENG 101	ENGLISH LANGUAGE 1	3
7	MAT 107	BIOSTATISTICS	3
8	MAT 109	GENERAL MATHEMATICS 1	2
9	PHE 101	PHYSICAL AND HEALTH EDUCATION	2
10	CUM 101	INTERPERSONAL COMMUNICATION	3
CREDIT UNIT TOTAL			27

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	ANA 123	ANATOMY AND PHYSIOLOGY 11	3
2	ANA 124	ANATOMY AND PHYSIOLOGY (practical)11	2
3	ENG 121	ENGLISH LANGUAGE 11	3
5	PHC 127	PHILOSOPHY OF HEALTH CARE	3
6	MAT 128	GENERAL MATHEMATICS 11	2
7	MET 125	MEDICAL TERMINOLOGY	3
8	POM 126	PRINCIPLES OF MANAGEMENT	3
9	RPH 127	REPRODUCTIVE HEALTH	3
10	GNS 121	GENERAL AND PHYSICAL CHEMISTRY	2
CREDIT UNIT TOTAL			24

YEAR TWO

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PHM 212	INTRODUCTION TO PHARMACOLOGY 1	3
2	BCM 211	INTRODUCTION TO BIOCHEMISTRY	3
3	BCM 201	BIOCHEMISTRY (practical)	2
4	PUB 212	INTRODUCTION TO COMMUNITY HEALTH	3
5	PUB 214	INTRODUCTION TO PUBLIC HEALTH	3
6	PUB 213	METHOD OF PATIENT CARE	3
7	PUB 215	PUBLIC HEALTH INFORMATION, EDUCATION AND COMMUNICATION	3
8	GEO 221	GENERAL AND REGIONAL GEOGRAPHY	3
9	GNS 211	RESEARCH METHODOLOGY	3
10	PUB 216	CLINICAL PROSEDURE AND INSTRUMENTS	2
CREDIT UNIT TOTAL			28

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PUB 222	EPIDEMIOLOGY AND DISEASE CONTROL	3
2	PUB 221	INTRODUCTION TO IMMUNITY AND VACCINATION	3
3	PUB 223	PATIENT EXAMINATION	2
4	MCB 221	INTRODUCTION TO MICROBIOLOGY	3
5	FDN 221	FOODS AND NUTRITION	3
6	PUB 226	MANAGEMENT AND ADMINISTRATION OF HEALTH PROGRAMME	2
7	GNS 225	RESEARCH PROJECT	6
8	MED 223	MEDICAL LAW AND ETHICS	3
9	MCH 212	MATERNAL AND CHILD HEALTH	3
CREDIT UNIT TOTAL			28

ANATOMY & PHYSIOLOGY

A knowledge of the normal structure and function of the different parts of the body must be coupled with some idea of the way in which disease arises and extends, so that the HA can assist in the various procedures used in diagnosis and treatment. The syllabus gives under the main headings the names of organs and systems to indicate the scope of teaching required. Both in diagnosis and treatment. Knowledge of the size and position of an organ is of paramount importance. The level to be aimed at here is difficult to define, but books on surface anatomy are available and only rarely will it be necessary to refer to major works on anatomy, such as Gray and Cunningham. Under the repeating headings common terms used in connections with diseases of this system, no detailed list of

diseases is required, but an explanation of those terms which the HA may encounter in daily work is necessary.

1. General Anatomical Terms

2. Regions of the body

3. Description of a typical animal cell: Cell mitosis; genes; sex cell; ova and spermatozoa. Fertilization of the ovum, Broad lines of embryonic development, Cell function and differentiation of tissues.

4. Structure of General tissues: Epithelium; simple and complex epithelia, glands; skin, connective tissue; fibrous tissue, cartilage, bones. Haversian systems; blood; numbers and types of cells in blood; clotting of blood. Muscle tissue; involuntary, voluntary and cardiac muscle. Nerve tissue.

5. Nature of neoplasm: Common benign tumours. Malignant tumours and their dissemination.

6. Bones, joints and locomotors system: General description of bones, their main processes and attachments, including the skull with emphasis on the skull as a whole. Development of bones, Primary and secondary bone centres; diaphyses and epiphyses. Position and function of main joints. Some common diseases and injuries of bones and joints. Healing of fractures.

7. Thorax and Abdomen: Structure of thoracic cage, abdominal cavity; diaphragm and mediastinum.

8. Heart and Blood Vessels: Structure and function of the heart, pericardium, peripheral vascular system; names of main arteries and veins, circulation. Common terms used in connection with diseases of this system.

9. Respiratory system: Nasal passages and accessory nasal sinuses, pharynx and larynx, trachea, bronchi and lungs; pleura, nature and function of respiration. Common terms used in connection with diseases of this system.

10. Lymph node Groups: Lymph and tissue fluid, main lymphatic gland groups and drainage areas, lymphoid tissue and tonsil.

11. Reticulo-endothelial system: Spleen and liver, bone marrow, extent and nature, physiology of the red and white blood corpuscle's.

12. Alimentary system: Mouth, tongue and teeth, salivary glands, pharynx and oesophagus, stomach, small and large bowel, liver and biliary tract, pancreas, motility of the alimentary tract; digestion, absorption and metabolism, nutrition and dietetics, Common terms used in connection with diseases of this system.

13. Urinary tract: Kidneys, ureters, bladder and urethra; urine formation & excretion, common terms used in connection with diseases of the system.

14. Reproductive system: Male genital tract; testes, epididymis, seminal vesicle and prostate; female genital tract; uterine tubes, ovaries, uterus, vagina and vulva, the mammary glands; menstruation, pregnancy and lactation; common terms used in connection with diseases of this system.

15. **Endocrine glands:** Anatomy and function of pituitary, thyroid, para-thyroids, adrenal, thymus, pancreas and gonads as endocrine organs; common terms used in connection with diseases of this system.

16. **Nervous system:** Brain; main subdivisions and lobes; ventricular system, spinal cord, concept of motor, sensory and reflex pathways; meninges and cerebrospinal fluid; its circulation; autonomic nervous system; common terms used in connection with diseases of this system.

17. **Special sensory organs:** Structure and function of the eye; structure and function of the ear; structure and function of the skin.

METHOD OF PATIENT CARE

This section is intended to emphasise to the student HA the importance of patient welfare. Many of the points included in this section may be considered during the teaching of other subjects also; but it is strongly urged that specific teaching and as much practical demonstration and instruction as possible should be given in this section. Modern hospital treatment is based on teamwork. It is essential that the student should appreciate the Health Care Assistant role and that the importance of co-operation with wards and other departments. The students should be attached to wards or the accident and emergency department for a definite training period, the length of time being suited to the individual hospital.

1. **Hospital procedure:** Hospital staffing and organisation; records relating to patients and departmental statistics; professional attitude of the technologist to patients and other members of the staff; medico-legal aspects; accidents in the departments, appointments, organisation; minimising waiting time; out-patient and follow-up clinics; stock-taking and stock keeping.

2. **Care of the patient :** First contact with patients in the department; management of chair and stretcher patients and aids for this, management of the unconscious patient; elementary hygiene; personal cleanliness; hygiene in relation to patients (for example clean linen and receptacles , health care; temperature pulse and respiration; essential care of the patient who has a tracheotomy; essential care of the patient who has a colostomy; bedpans and urinals; simple application of a sterile dressing.

3. **First aid:** Aims and objectives of first aid; wounds and bleeding, dressing and bandages; pressure and splints, supports etc. Shock; insensibility; asphyxia; convulsions; resuscitation, use of suction apparatus, drug reactions; prophylactic measures; administration of oxygen; electric shock; burns; scalds; haemorrhage; pressure points; compression band. Fractures; splints, bandaging; dressing, foreign body poisons.

4. **Infection:** Bacteria, their nature and appearance; spread of infections; auto-infection or cross-infection; the inflammatory process; local tissue reaction, general body reaction; ulceration; asepsis and antisepsis.

5. **Principles of asepsis:** Sterilisation - methods of sterilisation; use of central sterile supply department; care of identification of instruments, surgical dressings in common

use, including filamented swabs, elementary operating theatre procedure; setting of trays and trolleys in the hospital/medical setting,

6. Departmental procedures: Department staffing and organisation; records relating to patients and departmental statistics; professional attitudes of the technician to patients and other members of the staff, medico-legal aspects accidents in the department; appointments; organisation; minimising waiting time; out-patient and follow-up clinics; stock taking and stock keeping.

INTRODUCTION TO COMPUTER

COURSE DESCRIPTION

This course is designed for students to develop basic understanding of uses of computer and its applications.

OBJECTIVES: At the end of the course, the student will develop:

1. Demonstrate skill in the use of MS Office, MS Excel and MS Power point
2. Demonstrate use of internet and Email

COURSE CONTENT

INTRODUCTION TO COMPUTER:

Creating and Managing Professional Documents using Word

Presenting and Managing Data effectively using Excel

Creating and Managing presentations using Power Point

Communicate and Manage tasks, contacts and Appointments Using Office Outlook

Introduction to Digital Life Style

TYPING TEXT IN MS WORD: Inserting tables in a document.

Formatting the text – using different font sizes, bold, italics

Bullets and numbering Pictures, file insertion

Aligning the text and justify

Choosing paper size

Adjusting margins

Header and footer; Inserting page No's in a document

Printing a file with options

Using spell check and grammar

CREATING TABLE IN MS-EXCEL: Cell editing – Using formulas and functions

Manipulating data with excel

Using sort function to sort numbers and alphabets\Drawing graphs and charts using data in Excel

Auto formatting

Inserting data from other worksheets.

PREPARING NEW SLIDES USING MS- POWERPOINT: Inserting slides

Slide transition and animation

Using templates Different text and font sizes

Slides with sounds

Inserting clip arts, pictures, tables and graphs

Presentation using wizards.

INTRODUCTION TO INTERNET: Using search engine – Google search –

Exploring the next using Internet

Explorer and Navigator

Uploading and Download of files and images

E-mail ID creation

Sending messages

Attaching files in E-mail

Typing a text and aligning the text with different formats using MS-Word

Inserting a table with proper alignment and using MS-Word

Create mail merge document using MS-word to prepare greetings for 10 friends

Preparing a Slide show with transition, animation and sound effect using MS PowerPoint

Customizing the slide show and inserting pictures and tables in the slides using MS PowerPoint

Creating a worksheet using MS-Excel with data and use of functions

Using MS Excel prepare a worksheet with text, date time and data

Preparing a chart and pie diagrams using MS Excel

Using Internet for searching, uploading files, downloading files and creating e- mail ID

INTRODUCTION TO MICROBIOLOGY

COURSE DESCRIPTION

The course is designed to assist students to acquire understanding of fundamentals of microbiology and identification of microorganisms. It also provides opportunities for practicing infection control measures in hospital settings

OBJECTIVES: At the end of the course, the student will be able to:

1. Identify common disease producing microorganisms
2. Explain the basic principles of microbiology and their significance in health and disease.
3. Demonstrate skill in handling specimens
4. Explain various methods of disinfection and sterilization
5. Identify the role of the nurse in hospital infection control system

COURSE CONTENT

INTRODUCTION: Concepts and terminology

Principles of microbiology

GENERAL CHARACTERISTICS OF MICROBES: Structure and classification of Microbes

Morphological types Size and forms of bacteria

Motility Colonization Blood and body fluids

Laboratory methods for identification of Microorganisms

Staining techniques: Gram staining, Acid Fast staining, hanging drop preparation

CULTURE: various medias

CLINICAL MICROBIOLOGY AND INFECTION CONTROL

INTRODUCTION - Importance of infection in an ICU, Agents causing Infection

SPREAD OF INFECTION: Source; host; transmission, Bio hazardous materials

Hospital Acquired infections: Prevention & Universal precautions

Sterilisation & Disinfection - concepts Methods of sterilization

Spread of infection

Elimination of source - cleaning and sterilizing equipment

Interrupting transmission of infection - role of Health Care Workers

Disposal of infectious wastes

SPECIFIC INFECTIONS: HIV-AIDS o Hepatitis A, B, C

Tropical Infections - Tetanus, Malaria, Leptospirosis, Dengue, Sepsis, Chikungunya, Scrub typhus, Enteric fever, Tuberculosis

PRACTICALS

Use and care of microscope

Identification of smear Blood Mounts and Yeasts.

Quick card tests for Malaria, Dengue

While giving care in the wards the students will practice collection of samples and processing of sterilization, immunization, chemotherapy and maintenance of personal and environmental hygiene.

OBSERVATION

visit to an incinerator, posting in CSSD and infection control department

PATIENT EXAMINATION

COURSE DESCRIPTION

This course is designed to equip the student with the basic knowledge of patient examination starting from admission of patient to discharge or referral or death in a clinical/medical setting.

OBJECTIVES: Students are able to:

Understand the basic principles of patient examination

Demonstrate the beginning skill for effective communication

Meet the needs of the patient in relation to comfort, rest and sleep including hygienic needs

Demonstrate skill in applying nursing care related to vital signs

Render first aid treatment

Demonstrate the teaching skills while educating the patient, family and community.

COURSE CONTENT

INDIVIDUAL PATIENT CARE: The Art of History taking

Physical examination (GPE & different systems)

Care of Unconscious patient

INTRODUCTION TO HEALTH AND HEALTH CARE SYSTEM:

Definition and concepts of terms health, illness, mobility, mortality, patient

Nature of disease pattern Impact of illness on individual, family and community

Hospital (settings type and functions)

COMMUNICATION SKILLS: Process of communication

Modes of communication

Characteristics of effective communication

Factors affecting communication

Observing, listening and interviewing

Communication with other members of health team

5. COMFORT REST AND SLEEP NEEDS OF PATIENTS: Purposes of rest and sleep

Factors affecting rest and sleep Common problems of sleep Use of comfort devices

6. PATIENT HYGIENE: Definition and principles relevant to hygiene

Factors influencing hygiene

Care of skin and its appendages, mouth, eyes, ear, nose, perineum and clothing

Common health problems of poor personal hygiene

7. HOUSE KEEPING: Rubber Goods, Enamel Ware Plastic, Porcelain, Glass Articles etc.

8. VITAL SIGNS: Temperature--Definition and normal body temperature,
Factors affecting normal body temperature, Assessment of normal body temperature.

Pulse--Definition and normal pulse rate, Characteristics of normal pulse,
Factors influencing pulse, Alterations in pulse, Assessment of pulse.

Respiration--Definition and normal respiratory rate, Characteristics of normal respiration,
Factors influencing respiratory rate, Alterations in respiration.

Blood pressure--Definition and normal blood pressure,
Factors influencing normal blood pressure, Assessment of blood pressure.

FIRST AID: Principles of first aid management

Wounds, haemorrhage, shock Fracture, dislocations, muscle injuries Splinting

Respiratory emergencies, unconsciousness

Burns, scalds, foreign bodies in the skin, eye, ear, nose, throat, stomach

Frost bite, effects of heat cramps, bites and stings Poisoning Bandaging

9. FLUID AND ELECTROLYTE BALANCE:

Factors affecting fluid, electrolyte and acid base balance

Care of patients with fluid and electrolyte imbalance

Starting IV infusion

10. BODY MECHANICS: Movement of patient lifting and transporting

11. INFECTION CONTROL: Infection cycle

Universal precautions

Barriers technique

12. HEALTH EDUCATION: Aims and objectives of health education

Principles of health education

Methods of health education

Audio visual aids – purposes, types, selection and use

PRACTICALS

1. Use of comfort devices
2. Bandaging
3. Lifting and transporting of injured persons
5. Record keeping

MEDICAL TERMINOLOGY

This course introduces the elements of medical terminology. Emphasis is placed on building familiarity with medical words through knowledge of roots, prefixes, and suffixes. Topics include: origin, word building, abbreviations and symbols, terminology related to the human anatomy, reading medical orders and reports, and terminology specific to the student's field of study. Spelling is critical and will be counted when grading tests. Sub-topics to be covered under the subject are as follows:

- Derivation of medical terms.
- Define word roots, prefixes, and suffixes.
- Conventions for combined morphemes and the formation of plurals.
- Basic medical terms.
- Form medical terms utilizing roots, suffixes, prefixes, and combining roots.
- Interpret basic medical abbreviations/symbols.

LIST OF SOME ABBREVIATIONS

AC	-----	Alternating Current
ACLS	-----	Advanced Cardiac Life
Support		
ADH	-----	Anti-Diuretic Hormone
AED	-----	Automated External
Defibrillator		
AKI	-----	Acute Kidney Injury
ALS	-----	Advance Life Support
ANCA	-----	Antineutrophil Cytoplasmic
Antibody		
ANS	-----	Autonomic Nervous System
AntiGBM	-----	Anti-Glomerular Basement
Membrane		
APD	-----	Automated Peritoneal Dialysis

ARF -----	Acute/Advanced Renal Failure
ASO/ASLO-----	
Antistreptolysin O	
ATN -----	Acute Tubular Necrosis
ATP-----	Adenosine
Triphosphate	
AVF -----	Arterio-Venous Fistula
AVG-----	Arterio-Venous
Grafts	
AYUSH-----	Ayurveda, Yoga and Naturopathy, Unani, Siddha,
Homeopathy	
AZA-----	Azathioprine
B.D.S. -----	Bachelor of Dental
Surgery	
B.Sc. -----	Bachelor of Science
BSc. DTT-----	Bachelors of Science in Dialysis Therapy
Technology	
BLD -----	Blood Leak Detector
BLS-----	Basic life support
BM-----	Biomedical
BMR -----	Basal Metabolic Rate
BMW-----	Bio Medical Waste
BP-----	Blood Pressure BT Bleeding Time
BUN-----	Blood Urea Nitrogen
BVMs-----	Bag Valve Masks
BVSC-----	Bachelor of Veterinary Science C
ANCA-----	Cytoplasmic – Antineutrophil Cytoplasmic
Antibody	
CAPD -----	Continuous Ambulatory Peritoneal Dialysis
CATS-----	Credit Accumulation and Transfer System
CAVH -----	Continuous Arterio-Venous Hemofiltration
CBCS-----	Choice-Based Credit System
CBD-----	Case-based discussion
CCPD-----	Continuous Cycling Peritoneal Dialysis

CEX Mini	-----Case Evaluation Exercise
CHC	-----Community Health Centre
CHF	-----Congestive Heart Failure
CKD	-----Chronic Kidney Disease
CMV	-----Cytomegalovirus
CNS	-----Central Nervous System
CPR	-----Cardio Pulmonary Resuscitation
CPU	-----Central Processing Unit
CRF	-----Chronic Renal Failure
CRP	-----C-Reactive Protein
CRRT	-----Continuous Renal Replacement Therapy
CSA	-----Cyclosporin A
CSF	-----Cerebro Spinal Fluid
CT	-----Clotting Time
DC	-----Direct Current
DDTT	-----Diploma in Dialysis Therapy Technology
DGF	-----Delayed Graft Function
DH	-----District Hospital
DNA	-----Deoxyribonucleic Acid
DOPs	-----Direct observation of procedures
DSA	-----Donor Specific Antibodies
DTT	-----Dialysis Therapy Technology
EBV	-----Epstein-Barr virus
ECG	-----Electrocardiogram
EEG	-----Electroencephalogram
ELISA	-----Enzyme-Linked Immuno Sorbent Assay
EMG	-----Electromyogram
EMR	-----Electronic Medical Records
EMS	-----Emergency Medical Services
EPROM	-----Erasable Programmable Read Only Memory
ESR	-----Erythrocyte Sedimentation Rate
ESRD	-----End Stage Renal Disease

FISH	Fluorescence In Situ Hybridization
G	Gravity
GFR	Glomerular Filtration Rate
GIT	Gastro-Intestinal Tract
H & E Staining	Hematoxylin and Eosin Staining
Hb	Hemoglobin
HBsAg	Hepatitis B Surface Antigen (or protein)
HBV	Hepatitis B virus
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HLA	Human Leukocyte Antigen
HLS	Histocompatibility
HoD	Head of Department
HRQOL	Health-Related Quality Of Life
HSSC	Healthcare Sector Skill Council
ICT	Information and Communications Technology
ICU	Intensive Care Unit
IgA	Immunoglobulin A
IgD	Immunoglobulin D
IgE	Immunoglobulin E
IgG	Immunoglobulin G
IgM	Immunoglobulin M
ILO	International Labour Organization
ISCN Nomenclature	International System for Human Cytogenetic
IV	Intravenous
IVP	Intra Venous Pyelogram
JCI	Joint Commission International
JG	Juxtaglomerular
K	Clearance
KoA	Mass Transfer Coefficient

KT/V -----Number used to quantify hemodialysis and peritoneal dialysis treatment adequacy, where K - dialyzer clearance of urea, t - dialysis time and V - volume of distribution of urea, approximately equal to patient's total body water

Ku-----f Ultrafiltration Coefficient

L J----- media Löwenstein-Jensen medium

L.S.----- Longitudinal Section

LAN----- Local Area Network

LD----- Level Detector

LF----- Lactose Fermenting

LMWH----- Low Molecular Weight Heparin

LS----- Longitudinal Section

M.B.B.S.----- Bachelor of Medicine and Bachelor of Surgery

Mab----- Monoclonal Antibody

MAN----- Metropolitan area network

MARS----- Molecular Adsorbent Recirculating System

MCH----- Mean Cell Haemoglobin

MCHC----- Mean Corpuscular Hemoglobin Concentration

MCV----- Mean Cell (or Corpuscular) Volume

ME----- Microscopic Examination

MHC----- Major Histocompatibility Complex

MLC----- Medico legal case

MoHFW----- Ministry of Health and Family Welfare

MoU----- Memorandum of Understanding

MS----- Microsoft

NA----- Nutrient Agar

NCRC----- National Curricula Review Committee

NHM----- National Health Mission

NHP----- National Health Programme

NIAHS TSU----- National Initiative for Allied Health Sciences-Technical Support Unit

NIPD----- Nocturnal Intermittent Peritoneal Dialysis

NK-----	Natural Killer cell
NLF-----	Non Lactose Fermenting
NMJ-----	Neuromuscular Junction
NSDA -----	National Skills Development Agency
OT -----	Operation Theatre
P-ANCA----- Antibody	Perinuclear – Antineutrophil Cytoplasmic
PAOP-----	Pulmonary Artery Occlusion Pressure
PCM/B-----	Physics, Chemistry, Maths/ Biology
PCR-----	Polymerase Chain Reaction
PCTs-----	Patient Care Technologists
PCV-----	Packed Cell Volume
PD-----	Peritoneal Dialysis
PEA-----	Pulseless Electrical Activity
PET-----	Peritoneal Equilibrium/Equilibration Test
PG-----	Post Graduate
PHC-----	Primary Health Centre
POSSOM----- Malformations	Pictures of Standard Syndromes and Undiagnosed
PPE-----	Personal Protective Equipment
PRA-----	Panel Reactive Antibodies
PT -----	Prothrombin Time
PTH-----	Para-Thyroid Hormone
PTT-----	Partial Thromboplastin Time
RAM-----	Random Access Memory
RBC-----	Red Blood Cells
RDA-----	Recommended Dietary Allowances
RF-----	Rheumatoid Factor
RNA-----	Ribonucleic Acid
RO-----	Reverse Osmosis
ROM -----	Read-Only Memory
RPM-----	Revolutions Per Minute

RQ-----	Respiratory Quotient
RS-----	Respiratory System
SC/ST/OBC -----	Schedules Castes/ Scheduled Tribes/ Other Backward Classes
SCA-----	Sudden Cardiac Arrest SCUF Slow Continuous Ultrafiltration
SDA-----	Specific Dynamic Action
SDL-----	self-directed learning
SI-----	System International
SLED-----	Slow Low Efficiency Dialysis/Sustained Low-Efficiency Dialysis
T.S. -----	Transverse Section
TIBC-----	Total Iron Binding Capacity
TmG-----	Transport maximum for Glucose
TMP-----	Trans Membrane Pressure
TNF-----	Tumor Necrosis Factor
TS-----	Transverse Section
TSC-----	Technical safety checks
UF-----	Ultrafiltration
UHC-----	Universal Health Care
UTI -----	Urinary Tract Infection
UV -----	Ultra-Violet
VDE test-----	Verband der Elektrotechnik
VDRL-----	Venereal Disease Research Laboratory
VF-----	Ventricular Fibrillation
VT-----	Ventricular Tachycardia
WAN-----	Wide area network
WBC-----	White Blood Cells
WWW-----	World Wide Web

- Utilize diagnostic, surgical, and procedural terms and abbreviations related to the integumentary system, musculoskeletal system, respiratory system, cardiovascular system, nervous system, and endocrine system.
- Interpret medical orders/reports.

- Data entry and management on electronic health record system.

ENGLISH LANGUAGE

COURSE DESCRIPTION

The course is designed to enable students to enhance ability to comprehend spoken and written English (and use of English) required for effective communication in their professional work. Students will practice their skills in verbal and written English during clinical and classroom experience.

OBJECTIVES: At the end of the course the student will develop:

Ability to speak and write grammatically correct English

Effective skill in reading and understanding the English language Skill in reporting

COURSE CONTENT

COMMUNICATION: Communication at the work place

Human needs and communication “Mind mapping”

Information communication

COMPREHENSION PASSAGE: Reading purposefully

Understanding what is read

Drawing conclusion

Finding and analysis

EXPLAINING: How to explain clearly

Explaining procedures

Giving directions

WRITING BUSINESS LETTERS: How to construct correctly

Formal language

Address

Salutation

Body and Conclusion

REPORT WRITING: Reporting an accident

Reporting what happened at a session

Reporting what happened at a meeting

PRACTICUM

• The clinical experience in the wards will provide opportunity for students to fulfill the objectives of learning language. Assignment on writing and conversation through participation in discussion debates seminars and symposia. The students will gain further skills in task oriented communication.

METHODS OF EVALUATION

1. Individual Oral presentations.
2. Group Discussion.
3. Summary / Essay / Letter writing.
4. Medical / General vocabulary exercises

MEDICAL LAW AND ETHICS

Legal and ethical considerations are firmly believed to be an integral part of medical practice in planning patient care. Advances in medical sciences, growing sophistication of the modern society's legal framework, increasing awareness of human rights and changing moral principles of the community at large, now result in frequent occurrences of healthcare professionals being caught in dilemmas over aspects arising from daily practice. Medical ethics has developed into a well based discipline which acts as a "bridge" between theoretical bioethics and the bedside. The goal is "to improve the quality of patient care by identifying, analyzing, and attempting to resolve the ethical problems that arise in practice". Doctors are bound by, not just moral obligations, but also by laws and official regulations that form the legal framework to regulate medical practice. Hence, it is now a universal consensus that legal and ethical considerations are inherent and inseparable parts of good medical practice across the whole spectrum. Few of the important and relevant topics that need to focus on are as follows:

- A.**
1. Medical ethics - Definition - Goal - Scope
 2. Introduction to Code of conduct
 3. Basic principles of medical ethics – Confidentiality.
 4. Malpractice and negligence - Rational and irrational drug therapy.
 5. Autonomy and informed consent - Right of patients.
 6. Care of the terminally ill- Euthanasia.
 7. Organ transplantation.
 8. Medico legal aspects of medical records – Medico legal case and type- Records and document related to MLC - ownership of medical records - Confidentiality Privilege communication - Release of medical information - Unauthorized disclosure - retention of medical records - other various aspects.
 9. Professional Indemnity insurance policy.
 10. Development of standardized protocol to avoid near miss or sentinel events.

11. Obtaining an informed consent.

B. Professionalism and Values

The course on professionalism will deliver the concept of what it means to be a professional and how a specialized profession is different from a usual vocation. It also explains how relevant is professionalism in terms of healthcare system and how it affects the overall patient environment.

1. Professional values- Integrity, Objectivity, Professional competence and due care, Confidentiality.
2. Personal values- ethical or moral values.
3. Attitude and behaviour- professional behaviour, treating people equally.
4. Code of conduct, professional accountability and responsibility, misconduct.
5. Differences between professions and importance of team efforts.
6. Cultural issues in the healthcare environment

INTERPERSONAL COMMUNICATION

Major topics to be covered are:

1. Basic Language Skills; Grammar and Usage.
2. Business Communication Skills with focus on speaking - Conversations, discussions, dialogues, short presentations, pronunciation.
3. Teaching the different methods of writing like letters, E-mails, report, case study, collecting the patient data etc. Basic compositions, journals, with a focus on paragraph form and organization.
4. Basic concepts & principles of good communication.
5. Special characteristics of health communication.
6. Types & process of communication.
7. Barriers of communication & how to overcome

INTRODUCTION TO PHARMACOLOGY

1. IV fluid therapy with special emphasis in renal diseases, Define IV fluids; differentiate between various IV fluids; use of crystalloids and colloids in renal diseases; mode of action, contraindication, precautions and side effects of using various IV fluids.
2. Diuretics: Introduction to diuretics, definition, classification, actions, dosage, side effects & contraindications

3. Anti-hypertensive: Definition, classification, actions, dosage, side effects & contraindications, special reference during dialysis, vasopressors, drugs used in hypotension
4. Drugs & dialysis: Dose & duration of drugs used in dialysis, administration of drugs and the effect of dialysis on the action of drugs
5. Dialyzable drugs: List of drugs that are dialyzable; action, dosage, side effects and contraindications of phenobarbitone, lithium, methanol, etc.
6. Iron: Use of Iron therapy in dialysis; its metabolism, role in RBC formation and anemia; forms of iron therapy, indications for use, available forms and dosages
7. Erythropoietin: History of the development and use of erythropoietin; its action, function, primary role in RBC formation and secondary role, mechanism of action, synthesis and regulation, indications for use, available forms and dosages
8. Heparin including low molecular weight heparin and heparin alternatives: Introduction to heparin and low molecular weight heparin, description of heparin & LMWH, pharmacokinetics, mode of action, indications and use, dosage and route of administration & side effects
9. Protamine sulphate: Introduction to protamine, mode of action, pharmacokinetics, indications, uses, dosage, route of administration, side effects, precautions, contraindications.
10. Formalin, citrate, sodium hypochlorite, hydrogen peroxide, Action, characteristics, the use of the drugs, its role as disinfectants, and adverse effects of residual particles applicable to formalin
11. Haemodialysis concentrates: Composition & dilution (acetate & bicarbonates)
12. Peritoneal dialysis fluid in particular hypertonic solutions – composition fluids used in peritoneal dialysis, the composition and strength of concentration, mode of action, uses, indications and precaution
13. Potassium exchange resins with special emphasis on mode of administration: Introduction to potassium exchange resins; chemical composition; types, mode of action, indications for use; side effects, precautions and contraindications.

RESEARCH METHODOLOGY

The objective of this is to help the students understand the basic principles of research and methods applied to draw inferences from the research findings.

1. Introduction to research methods.
2. Identifying research problem.
3. Ethical issues in research.
4. Research design.

5. Basic Concepts of Biostatistics.
6. Types of Data.
7. Research tools and Data collection methods.
8. Sampling methods.
9. Developing a research proposal.

PRINCIPLES OF MANAGEMENT

The course is intended to provide knowledge about the basic principles of Management.

1. Introduction to management.
2. Strategic Management.
3. Foundations of Planning.
4. Planning Tools and Techniques.
5. Decision Making, conflict and stress management.
6. Managing Change and Innovation.
7. Understanding Groups and Teams.
8. Leadership.
9. Time Management.
10. Cost and efficiency

Community orientation and clinical visit

INTRODUCTION TO BIOCHEMISTRY

1. Carbohydrates: Glucose and Glycogen Metabolism
2. Proteins: Classification of proteins and functions
3. Lipids: Classification of lipids and functions
4. Enzymes: Definition, Nomenclature, Classification, Factors affecting enzyme activity, Active site. Coenzyme, Enzyme Inhibition, Units of enzymes, Isoenzymes and Enzyme pattern in diseases
5. Vitamins & Minerals: Fat soluble vitamins (A, D, E, K), water soluble vitamins, B-complex vitamins, principal elements (Calcium, Phosphorus, Magnesium, Sodium, Potassium, Chlorine and Sulphur), trace elements, calorific value of foods, Basal Metabolic Rate (BMR), Respiratory Quotient (RQ), Specific Dynamic Action (SDA), balanced diet, Marasmus and Kwashiorkor
6. Acids and bases: Definition, pH, Henderson – Hassel Balch equation, Buffers, Indicators, Normality, Molarity, Molality

PRACTICAL

1. Benedict's test.
2. Heat coagulation tests

GENERAL PSYCHOLOGY

COURSE DESCRIPTION: This course will enable the student to understand specific psychological factors and effects in physical illness and thus help them to have a holistic approach in their dealings with patients during admission, treatment, rehabilitation, and discharge.

COURSE OBJECTIVES: The objective of this course is that the student will be able to recognize and help with the psychological factors involved in disability, pain, disfigurement, unconscious patients, chronic diseases, death, bereavement and medical – surgical patients / conditions. They should also understand the elementary principles of behaviour for applying in the therapeutic environment. In addition, the student will be able to fulfil the following objectives of the course; Psychosocial assessment of patients in various developmental stages, explain the concept of stress and its relationship to health, stress and one's profession, identify ego defence mechanisms and learn counselling techniques to help those in need, help them to understand the reasons of non-compliance in patients and improve compliance behaviour.

A. DEFINITION OF PSYCHOLOGY

1. Definition of psychology, basic information in relation to following schools' methods and branches.
 - a. Schools: Structuralism, functionalism, behaviourism, psychoanalysis, gestalt psychology.
 - b. Methods: Introspection, observation, inventory and experimental method.
 - c. Branches: General, child, social, abnormal, industrial, clinical, counselling, education.

B. HEREDITY AND ENVIRONMENT

Twins, relative importance of heredity and environment, their role in relation to physical characteristics, intelligence and personality, nature-nurture controversy.

C. DEVELOPMENTAL THEORIES AND GROWTH BEHAVIOUR

At Infancy, early childhood, middle childhood, puberty (physiological and psychological changes), adulthood, middle age, and old age.

D. INTELLIGENCE

Definitions: IQ, Mental Age,

List of various intelligence tests – WAIS, WISC, Bhatia's performance test, Raven's Progressive Matrices test, Binet Kamat Test of Intelligence and Malins Intelligence Scale

E. MOTIVATION

Definitions: Motive, drive, incentive, and reinforcement.

Basic information about primary needs: hunger, thirst, sleep, elimination activity, air, avoidance of pain, attitude to sex.

Social motives: Information, security, self – esteem, competence, love and hope.

F. EMOTIONS

Definition: Differentiate from feelings, physiological changes of emotion

Role of RAS, hypothalamus, cerebral cortex, sympathetic nervous system, adrenal gland, heredity and emotion, and control of anger, fear and anxiety.

G. PERSONALITY

Definition, list the components: Physical characteristics, abilities, temperament interest, and attitudes.

The role of heredity, nervous system, physical characteristics, abilities, family, and culture on personality development.

Basic concepts of Freud: Unconscious, conscious, id, ego, and superego. The oral, anal, and phallic stages of personality development. The 8 stages as proposed by Erickson, 4 concepts of learning as proposed by Dollard and Miller; drive, cue, response and reinforcement.

Personality assessment; interview, standardised, non- standardised, exhaustive and stress interviews.

H. LEARNING

The laws of learning as proposed by Thorndike.

Types of learning: Briefly describe classical conditioning, operant conditioning, insight, observation and Trial and Error type.

The affective ways to learn: Massed Vs. Spaced. Whole Vs. Part, Recitation Vs. Reading, Serial Vs. Free recall, Knowledge of results, Association, Organization, Mnemonic methods, Incidental Vs Intentional learning, role of language.

I. THINKING

Definition, concepts, creativity, steps in creative thinking; problem solving, decision making, list the traits of creative people, delusions

J. FRUSTRATION

Definition, sources, solution, conflict; Approach - approach, avoidance-avoidance, and approach – avoidance, solution

K. SENSATION, ATTENTION, AND PERCEPTION

1. List the senses: Vision, Hearing, Olfactory, Gustatory and Cutaneous sensation, movement, equilibrium and visceral sense.

Attention and factors that determine attention; nature of stimulus, intensity, colour, change, extensity, repetition, movement, size, curiosity, primary motives.

Perception and the principles of perception: Figure ground, constancy, similarity proximity, closure, continuity, values and interest, past experience context, needs, moods, religion, sex and age, perceived susceptibility, perceived seriousness, perceived benefits and socio-economic status.

Illusion and hallucination.

L. DEMOCRATIC AND AUTHORITARIAN LEADERS

Qualities of leadership: Physical factors, intelligence, self-confidence, sociability, will and dominance.

Define attitude, change of attitude by: Additional information, changes in-group affiliation, enforced modification by law and procedures that affect personality. (Psychotherapy, Counselling and religious conversion).

M. DEFENCE MECHANISMS OF THE EGO

Denial rationalization, projection, reaction formation, identification, repression, emotions, insulation, undoing, introjections, acting out, depersonalization.

COURSE TITLE: GENERAL AND PHYSICAL CHEMISTRY

COURSE DESCRIPTION: This course is designed to provide the student with the knowledge of general and physical chemistry

COURSE OBJECTIVES: At the end of this course, the student should be able;

Understand atoms, molecules, their structures and chemical bonding; Outline the history of atomic and molecular theories, Explain the atomic model based on works of Faraday, Thompson, Milliken, Rutherford and Moseley. Explain the experimental basis of atomic theory) using the Bohr's theory of hydrogen atom and many electron atoms, Explain the significance of the four quantum numbers, Explain isotopes and their uses, Explain valency and chemical bonding, Distinguish between the following types of bonds; electrovalent, covalent, co-ordinate bond.

Understand the states of matter; Explain the mole as a unit, Explain Avogadro's number, State the following gas laws; Dalton's, Graham's, Boyle's and Charles'. Explain molar volume and general gas equation, State kinetic molecular theory of gases, Explain the three phases of matter: (solid, liquid and gas) in terms of the kinetic molecular theory.

Understand the behaviour of acids, bases and salts in aqueous medium; Explain acids and bases in relation to Arrhenius, Bronsted Lowry and Lewis concepts, Explain indicators as organic compounds, which are weak acids or bases, Identify various types of indicators, Explain the concept of pH to cover both acidic and basic ranges, Define a buffer solution, Explain the action of buffers.

Know the fundamental concept of oxidation and reduction reactions;

Explain:

Oxidation Reaction

Reduction Reaction

List some oxidizing and reducing agents

Understand surface phenomena and colloidal systems; Explain the following surface phenomena:

Colloidal Gels

Surface Tension

Adsorption

Emulsion

Gels

Flotation

Chromatography

Differentiate between adsorption and absorption.

COURSE TITLE: GENERAL AND REGIONAL GEOGRAPHY

COURSE DESCRIPTION: This course is designed to provide the student with knowledge of the Geography of Nigeria necessary for him/her to appreciate landmarks and terrain in the community.

COURSE OBJECTIVES/ OUTLINE: At the end of this course, the student should be able;

Know the physical features, vegetation and climatic zones in Nigeria; Draw and label a map of Nigeria showing important physical features e.g. hills, high lands, rivers, lakes. Draw and label a map of Nigeria indicating the climatic zones e.g. rain fall temperature, humidity. Draw and label a map of Nigeria clearly indicating all the vegetation zones e.g.

- a. Mangrove Forest
- b. Freshwater Swamps
- c. Montane Forest
- d. Forest
- e. Derived Savannah
- f. Southern Guinea
- g. Northern Guinea
- h. Sudan
- i. Sahel

Explain the influence of vegetation zones on vegetative distribution in Nigeria.

Know the demography of Nigeria; List the major ethnic groupings in Nigeria, indicate on a map of Nigeria areas occupied by the groupings mentioned above, Explain the farming habits and traditions of the major ethnic groups in Nigeria and their influence on Health.

Know the measurement of climatic factors; Identify instruments in measurement of climatic factors eg.

Thermometers

Rain Gauge

Hydrometer

Wet and Dry Bulb

Evaporimeter

Anemometer

Wind Vane, etc

Measure climatic factors using, the instrument listed above, improvise when necessary some of the measuring instruments listed above, Maintain the instruments listed in above.

Define GPS and its uses

Mapping and how it is used

FOODS AND NUTRITION

INTRODUCTION TO SCIENCE OF NUTRITION

- a. Definition.
- b. Food pattern and its relation to health.
- c. Factors influencing food habits.
- d. Superstitions, culture, religion, income, composition of family, age, occupation, special group etc.
- e. Food selection, storage and preservation.
- f. Prevention of food adulteration.

CLASSIFICATION OF NUTRIENTS

- a. Macronutrients and micronutrients.
- b. Types, sources, requirements and deficiency of proteins.
- c. Sources, requirements and deficiency of carbohydrates.
- d. Types, sources, requirements and deficiency of fats.

- e. Sources, requirement and storage of drinking water.
- f. Types, sources, requirements and deficiency of minerals.
- g. Types, sources, requirements and deficiency of vitamins.

PLANNING OF DIETS

- a. Need for planning of diets.
- b. Concepts of balanced diet.
- c. Food groups and balanced diet.
- d. Influence of age, sex, occupation & physiological state.
- e. Recommended dietary intake.
- f. Steps in planning balanced diet.
- g. Concepts of balanced diet for dialysis patients.
- h. Recommended dietary intake for dialysis patients.
- i. Planning diet for dialysis patients.
- j. Steps in planning balanced diet for dialysis patients.

CLINICAL PROCEDURES AND INSTRUMENTS (EMERGENCY SERVICES)

COURSE DESCRIPTION:

This course is designed to help the students to develop an understanding of the philosophy, objectives, theories and process of accident and emergency care technology in various Supervised Clinical settings. It is aimed at helping the students to acquire knowledge, understanding and skills in techniques of practice them in Supervised Clinical settings

1. INSTRUMENTATION IN EMERGENCY SERVICES:

Introduction to Biomedical engineering (Man – machine relationship)

ECG

DC Defibrillator

Intravenous pumps Laryngoscope, ambubag, suction machine

SPO2 monitoring, Temperature monitoring

BP apparatus, BP monitoring-NIBP, IBP

Ventilators Intensive care, portable

Manual resuscitator

Radiology equipment & radiation hazards

Suction machine

Nebulizer

Medical gases

Ambulance and its power supply

Dialysis machine

Infant warmer & incubator

2. CLINICAL PROCEDURES IN EMERGENCY ROOM: Vital Sign Measurement:

Pulse assessment

Respiratory assessment

Temperature assessment

Blood pressure assessment

SP02

Pain score (VAS)

Non invasive Assessment and Support of Oxygenation and Ventilation:

Pulse oximetry

Carbon dioxide Monitoring --> Capnometry

Oxygen therapy

Delivery systems for Inhaled Medication: Nebulizers

Metered Dose Inhaler

Cardiovascular procedures (Observation)

Cardiac Monitoring

Central venous pressure monitoring

Insertion of Arterial line: Central venous cannulation

Transcutaneous cardiac pacing

Transvenous cardiac pacing

Pericardiocentesis

Cardioversion

Defibrillation

Poison decontamination: Activated charcoal

Whole bowel irrigation

Genitourinary procedures: Urethral catheterization

Peritoneal dialysis

Placement and Management of external Arteriovenous shunt (Assisting).

Continuous Arteriovenous hemofiltration (Assisting)

Intravenous Therapy: Insertion of intravenous catheter

Administration of parenteral nutrition

Blood and Blood product administration

Neurologic Procedures Lumbar Puncture (Observation/Assisting)

PRACTICALS

ECG Interpretation

Spotter identification; Thermometer

BP apparatus

Stethoscope

Glucometer

Intraosseous infusion

LMA

Combitube

ET intubation

Nebuliser

Ventilator

Capnography

Pulse oximeter

Chest X-ray interpretation

ABG – Interpretation

ACLS

ATLS

PUBLIC HEALTH TECHNICIAN

SYLLABUS FOR DIPLOMA IN PUBLIC HEALTH TECHNICIAN (D.H.T)

This is a three-year Certificate course

GOAL: This programme is designed to produce Health technicians who will take part in provision of direct and indirect care to patients. Provision of medical diagnosis and provision of therapeutic treatment modality in health care delivery.

RESPONSIBILITIES:

- Assist medical staffs to complete task around their assigned unit
- Take part in provision of direct and indirect care to patients with or without supervision
- Take part in provision of medical diagnosis in health care delivery.
- provide therapeutic treatment modalities in health care delivery.
- Accommodate the patients and provide specialty duties such as cleaning of equipment.
- Report, read and interpret medical records, medical prescriptions and medical diagnosis

SKILLS

- Sensitivity and Empathy
- Observation skills
- Willingness to perform personal care tasks
- Ability to follow instructions strictly
- Positivity and cheerfulness

YEAR ONE**FIRST SEMESTER**

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PSY 101	GENERAL PSYCHOLOGY	3
2	BIO 101	GENERAL BIOLOGY	3
3	ANA 102	ANATOMY AND PHYSIOLOGY 1	3
4	CSC 106	INTRODUCTION TO COMPUTER	3
5	ANA 103	ANATOMY AND PHYSIOLOGY (practical)1	2
6	ENG 101	ENGLISH LANGUAGE 1	3
7	MAT 107	BIOSTATISTICS	3
8	MAT 109	GENERAL MATHEMATICS 1	2
9	PHE 101	PHYSICAL AND HEALTH EDUCATION	2
10	PUB 101	INTRODUCTION TO PUBLIC HEALTH	3
11	CUM 101	INTERPERSONAL COMMUNICATION	3
CREDIT UNIT TOTAL			30

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
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1	ANA 123	ANATOMY AND PHYSIOLOGY 11	3
2	ANA 124	ANATOMY AND PHYSIOLOGY (practical)11	2
3	ENG 121	ENGLISH LANGUAGE 11	3
5	PHC 127	PHILOSOPHY OF HEALTH CARE	3
6	MAT 128	GENERAL MATHEMATICS 11	2
7	MET 125	MEDICAL TERMINOLOGY	3
8	PUB 126	EPIDEMIOLOGY AND DISEASE CONTROL	3
9	RPH 127	REPRODUCTIVE HEALTH	3
10	GNS 121	GENERAL AND PHYSICAL CHEMISTRY	2
11	POM 126	PRINCIPLES OF MANAGEMENT	3
CREDIT UNIT TOTAL			27

YEAR TWO

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PHM 212	INTRODUCTION TO PHARMACOLOGY	3
2	BCM 211	INTRODUCTION TO BIOCHEMISTRY	3
3	BCM 201	BIOCHEMISTRY (practical)	2
4	PUB 212	CLINICAL PROCEDURE AND INSTRUMENTS	2
5	PUB 213	ADVOCACY, SITUATION ANALYSIS AND COMMUNITY DIAGNOSIS	3
6	PUB 215	PUBLIC HEALTH INFORMATION, EDUCATION AND COMMUNICATION	3
7	PUB 214	OCCUPATIONAL HEALTH AND SAFETY	2
8	GEO 221	GENERAL AND REGIONAL GEOGRAPHY	3
9	PUB 216	DEMOGRAPHY AND POPULATION CONTROL	2
10	MCH 212	MATERNAL AND CHILD HEALTH	3
11	MED 212	MEDICAL DIAGNOSIS	2
CREDIT UNIT TOTAL			28

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	FDN 221	FOODS AND NUTRITION	3
2	PUB 221	INTRODUCTION TO IMMUNITY AND VACCINATION	3
3	PUB 223	PATIENT EXAMINATION	2
4	MCB 221	INTRODUCTION TO MICROBIOLOGY	3

5	PUB 224	EPIDEMIOLOGY COMMUNICABLE AND NON-COMMUNICABLE DISEASES	3
6	PUB 225	MENTAL HEALTH	2
7	PUB 227	SCHOOL HEALTH SERVICES	2
8	PUB 226	MANAGEMENT AND ADMINISTRATION OF HEALTH PROGRAMMES	2
9	PUB 222	MANAGEMENT OF ESSENTIAL DRUGS	2
10	MED 223	MEDICAL LAW AND ETHICS	3
	CREDIT UNIT TOTAL		25

YEAR THREE

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	GNS 312	ENTREPRENEURSHIP	2
2	PUB 313	EYE CARE	2
3	PUB 312	CARE FOR THE PHYSICALLY CHALLENGED	2
4	PUB 311	PATIENT EXAMINATION	2
5	PUB 314	GERIATRICS	2
6	PUB 316	ENTOMOLOGY	2
7	PUB 315	EAR, NOSE AND THROAT CARE	2
8	GNS 311	RESEARCH METHODOLOGY	3
	CREDIT UNIT TOTAL		17

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PUB 325	CLINICAL PROCEDURES AND INSTRUMENTS (EMERGENCY SERVICES)	3
2	PUB 321	ORAL HEALTH	2
3	PUB 322	REFERRAL SYSTEM	2
4	GNS 321	RESEARCH PROJECT	6
	CREDIT UNIT TOTAL		13

COURSE TITLE: INTRODUCTION TO PUBLIC HEALTH

COURSE CODE: PUB 101

CREDIT UNIT: 3

GOAL: This course is designed to equip the student with the knowledge and skills to provide a public health service.

GENERAL OBJECTIVE:

On completion at this course the student should be able to:

- Analytically discuss the basic scientific concepts, methodological perspectives and factors that govern public health research.
- Discuss the evaluation of national and global trends affecting health, including communicable and non-communicable diseases as well as the health impact of different environmental and lifestyle factors.
- Apply basic public health concepts to the theoretical management of public health problems including disease prevention, health promotion, health economics and policy, as well as critically compare opposing viewpoints in these fields.

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Analytically discuss the basic scientific concepts, methodological perspectives and factors that govern public health research.	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Foundations of public health science • Concepts, principles and methods of public health science and practice • Analytical approaches and major determinants of health
Discuss the evaluation of national and global trends affecting health, including communicable and non-communicable diseases as well as the health impact of different environmental and lifestyle factors.	<ul style="list-style-type: none"> • Basic epidemiology, including principles of epidemiologic evaluation of public health interventions • Environmental and lifestyle factors affecting health and public health • Data sources on populations and mortality • The burden of disease and other measures of population health • Health care systems and population health • Social and behavioral determinants of health • Environmental and lifestyle factors including sustainable development and climate change

Apply basic public health concepts to the theoretical management of public health problems including disease prevention, health promotion, health economics and policy, as well as critically compare opposing viewpoints in these fields.

- Principles and methods of disease prevention and health promotion in relation to non-communicable and communicable diseases
- Philosophy of science and ethics in public health research
- Health economics, health management and policy including principles of economic evaluation of public health interventions

COURSE TITLE: GENERAL AND PHYSICAL CHEMISTRY

COURSE CODE: GNS 121

CREDIT UNIT: 2

GOAL: this course is designed to equip the student with the knowledge and skills of general and physical chemistry

GENERAL OBJECTIVES: On completion of the course the student should be able to:

- Understand atoms, molecules their structures and chemical bonding
- Understand the state of matters
- Understand the behaviours of acid, bases and salt gaseous medium
- Know the fundamental concept of oxidation and reduction reaction
- Understand surface phenomena and colloidal system

GENERAL OBJECTIVES	PERFORMAANCE OBJECTIVES
Understand atoms molecules, their structure and chemical bonding	<p>On completion of the course the student should be able to:</p> <ul style="list-style-type: none"> • Outline the history of atomic and molecular theories • Explain the atomic model based on work of Faraday, Thompson Milliken, Rutherford and Moseley • Explain the exponential basis of atomic theory using the bohr's theory hydrogen atom and many elections atoms

	<ul style="list-style-type: none"> • Explain the significance of the four quantum number • Explain Valiancy and their chemical bonding
Understand state of matter	<ul style="list-style-type: none"> • Explain the mole as a unit • Explain Avogadro's number • State the following gas laws Dalton's, Grahams Boyle's and Charles's • Explain molar volume and general gas equation • State kinetic molecular theory of gas • Explain the three phases at matter (solid , liquid and Gas) in terms at the Kinetic molecular theory
Understand the behaviours of acids bases and salts in aqueous medium	<ul style="list-style-type: none"> • Explain acids and base in relation to Anthenius Bronted Lowry and Lewis concept • Explain indicates as organic compounds, which are weak acids or bases • Identify the various types of indicators • Explain the concept of PH to cover both acidic and basic ranges • Define a buffer solution • Explain a reaction of butters
Knows the fundamental concept of oxidation and reduction reaction	<ul style="list-style-type: none"> • Explain: <ol style="list-style-type: none"> a) Oxidation Reaction b) Reduction Reaction • List some oxidizing and reaction agents
Understand surface phenomena colonial system	<ul style="list-style-type: none"> • Explain the following surface phenomena: <ol style="list-style-type: none"> a) Colloidal gas b) Adsorption c) Surface tension d) Emulsion e) Gas f) Chromatography • Differentiate between adsorption and absorption

COURSE TITLE: ENGLISH LANGUAGE

COURSE CODE: ENG 101

UNIT: 3

GOAL: This course is design to enable the students to equip with the knowledge and skill of effective communication in English using adequate communication toots.

GENERAL OBJECTIVES:

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

- Understand the concept of communication
- Understand the basic rules of grammar
- Know various methods of communication
- Understand the principles and practice of written communication
- Understand the procedures for writing a report
- Understand the Theory and practice of communication
- Understand the concept of organization communication

GENERAL OBJECTIVE	PERFORMANCE OBJECTIVES
Understand the concept of communication	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define communication • Analyze the process of communication
Understand the basic rule of grammar	<ul style="list-style-type: none"> • Explain grammar • Explain part of speech • Correct common errors in the use of part of speech in sentence • List punctuation marks • Enumerate the use of punctuation marks • Explain idioms • Explain figure of speech
Know various methods of communication	<ul style="list-style-type: none"> • Analyze the process of communication • Explain the relationship between communication and language • Explain the impact of barrier interference in communication e.g. phonological, personality • List the various aids in communication • Describe the element of good communication • List the various methods in communication e.g. role play e.t.c • Discuss the various method identified above • Mention the advantage and disadvantage of each method identified above
Understand the principles and practice of writing communication	<ul style="list-style-type: none"> • Explain the principles of letter writing

	<ul style="list-style-type: none"> • Explain the component of business letter • Differentiate between a memo and a letter • Prepare a portfolio of correspondence using different presentation techniques, appointments. Promotions condolence. Congratulation e.t.c • Define report • List the types of report • Enumerate use of report • Discuss the techniques of note taking/making
Understand the procedure of writing a report	<ul style="list-style-type: none"> • List the characteristics of good concept • Outline the stages of writing a report • Evaluate a given report • Write a report • Explain communication theory • Analyze in detail the communication process
Understand the theory and practice of communication	<ul style="list-style-type: none"> • Explain director of communication flow; internal (vertical, horizontal e.t.c) and external
Understand the concept of organization communication	<ul style="list-style-type: none"> • Differentiate between inter personal and intra personal sound communication • Classify communication variables by content, source, channel, recoiled message and effect

COURSE TITLE: INTRODUCTION TO COMPUTER

COURSE CODE: CSC 106

UNIT: 3

GOAL: This course is design to equip the student with the knowledge and use of computer

GENERAL OBJECTIVE:

On completion at this course the student should be able to:

- Understand the basic concept at the computer technology
- Understand the major component of the computer
- Understand how to use the computer
- Understand data processing and number system
- Understand computer operating system
- Understand and identify the computer virus
- Understand internet application

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the basic component of the computer technology	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define the computer • Explain types of computer • Classify computer according to: <ul style="list-style-type: none"> Capacity Mode of operation Generation
Understand the major component at the computer	<ul style="list-style-type: none"> • Explain the major component of the computer: <ul style="list-style-type: none"> Hardware Software • Explain the deviates and use of each computer components: <ul style="list-style-type: none"> Hardware device, input unit devices, keyboard, mouse, diskette, scanner, the visual display unit (VDU), Telephone line, majestic tape, tele-printer, loud speaker, majestic tape, printer roll.
Understand how to operate a computer	<ul style="list-style-type: none"> • Explain the systematic process of starting the computer and shutting down the computer booting
Understand the data processing and number system	<ul style="list-style-type: none"> • Explain simple date processing system • Electronic data processing • Explain number system binary and hexadecimal system and their conversion
Understand computer operating system	<ul style="list-style-type: none"> • Explain the operating system function computer, operating system techniques types of operating system e.t.c
Understand the computer virus	<ul style="list-style-type: none"> • Explain the meaning of the computer virus and anti-virus
Understand internet application	<ul style="list-style-type: none"> • Explain the internet • Enumerate the use of the internet

COURSE TITLE: GENERAL PSYCHOLOGY

COURSE CODE: PSY 101

UNIT: 3

GOAL: This course is designed to provide the student with general knowledge at individual behaviours development stages and factors responsible for certain behaviours

GENERAL OBJECTIVES:

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

- Discuss psychology
- Explain human development stages
- Explain the term memory
- Explain emotion
- Explain motivation

GENERAL OBJECTIVES	BEHAVIOURAL OBJECTIVES
Discuss psychology	On completion of this course, the students should be able to: <ul style="list-style-type: none">• Define the concept psychology• List and explain type of psychology• Relevance of psychology in health
Explain human development stages	<ul style="list-style-type: none">• Explain child development stages:<ul style="list-style-type: none">Before birthAfter birth• Explain adolescent stages at human• Analyze the adult development stages• Explain old age development stages
Explain the term memory	<ul style="list-style-type: none">• Explain:<ul style="list-style-type: none">MemoryRememberingForgettingFactor that aids forgettingFactors that aids remembering
Explain emotion	<ul style="list-style-type: none">• Explain the term emotion• List and explain types of emotion
Explain motivation	<ul style="list-style-type: none">• Explain the term• List and explain concept related to motivation e.g drive, stimulus incentives instrument act, need, value attitude, interest e.t.c• Importance of motivation to human being

COURSE TITLE: PHYSICAL AND HEALTH EDUCATION

COURSE CODE: PHE 101

UNIT: 2

GOAL: This course is designed to acquaint the student with the knowledge at health education.

GENERAL OBJECTIVES:

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

- Understand of definition at terms and factors that determine one health
- Understand the aims and objectives, principles and scope at health education
- Understand delivering training in health education for PHC workers
- Knows the implementation at health education
- Understand communication in health education
- Understand and be able to demonstrate different types of exercises

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the definition of terms and factors that determine one health	<p>On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> • Define the following terms: mobility, morality, health, self-care, believe and attitude • Describe the factors that determine one health states such as environment, gender, biology, lifestyle income e.t.c.
Understand the aims and objectives, principles and scope of health education	<ul style="list-style-type: none"> • Definition of health education • Explain the followings: Acquire knowledge. • Improve health of individual, change negative health behaviour prevents disease. • State the functions of Health Education: Assisting others in the planning health education, Giving trainings on healthy matters. Team building and Increase the level of awareness • Explain the following terms in relation to health education: Interest, participation comprehension, motivation, behaviour, and diagnosis. Health personal health, diseases, sanitation, nutrition, human body system and first aid

	<ul style="list-style-type: none"> • Responsibility to the public, profession, employer and in the delivery of health • Responsibility to the public, profession, employer and in the delivery of health • In selfish interest, expression of appropriate empathy giving of explanation to clarify issues, confidentiality and neatness
Understand delivering training health education for PHC workers	<ul style="list-style-type: none"> • Venue must be well set, punctuality respectful, not too forwards, be realistic and vocal. • Hygiene habit, feelings and attitude toward each other, nature of family budget, production of food, sanitation and play activities • Sorting of coping strategies, loving care, emotional support, promotion of position health feelings of relief. • Skills development, objectives settings, confidentiality, listening carefully and show concern.
Know the implication of health education	<ul style="list-style-type: none"> • Pycho-social and economic value such as preventing and controlling of disease improving the health matters, coping skills, it is cheaper. • Lecture method, debate, demonstration, discussion, experimentation and problem solving method • Discuss the guiding point of health talk guiding principles in health talk and general purpose of health talk.
Understand communication in health education	<ul style="list-style-type: none"> • Discuss the elements of communication, barriers in communication, the key element in communication process.

COURSE TITLE: CLINICAL PROCEDURE

COURSE CODE: PUB 212

UNIT: 2

GOAL: This course is designed to equip the student with the knowledge and skill practical procedure which will enhance effective health care delivery.

GENERAL OBJECTIVES

On completion at this course, the student must be able to:

- Understand the basic principle of interview

- Know the procedure involved in history taking
- Understand the principle of physical examination
- Know the procedure involved in mentoring vital signs and blood pressure
- Know how to carry out the procedure in tepid spongy
- Know how to prepare and administer oral sugar solution on other form of ORT
- Understand the principle of aseptic techniques in clinical procedure

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the basic principle and interview	<p>On completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> • Describe the procedure for interviewing a client • Explain the need to create a rapport with the client in a language the patient understand • Explain the need to make a client comfortable during interview • Interview and record information from the client
Know the involved in history taking	<ul style="list-style-type: none"> • Obtain clients history as a priority for the first visit • Obtain birth history • Obtain the development history • Obtain immunization history • Obtain nutritional history • Obtain social history • Obtain medical history of illness
Understand the principle of physical examination	<ul style="list-style-type: none"> • Define physical examination • Describe the various methods of physical examination • Identify the various instrument used for physical examination • Describe the use and handling of the various instrument
Know procedure involved in mentoring vital signs and blood pressure	<ul style="list-style-type: none"> • Define vital signs • Identify the instrument used in the taking vital signs • Explain the variation in degree of body temperature noting the normal average • Identify the causes of pyrex high temperature • list at site in taking temperature, pulse. Respiration and blood pressure • Set temperature tray • Identify the various sites in checking pulse • Mention the procedures involved in taking vital signs • Record and interpret findings adequately

Know how to carry out the procedure at tepid sponging	<ul style="list-style-type: none"> • Identify tepid water • Identify requirement for tepid sponging • Explain reasons for tepid sponging • Carry out tepid sponging
Know how to prepare and administer salt sugar solution and other form of ORT	<ul style="list-style-type: none"> • Identify the equipment necessary for preparing salt sugar solution • List the components at oral rehydration sachet • Identify the need for administration of salt sugar solution • prepare salt sugar solution • Administer salt sugar solution as prescribed • Teach mothers how to prepare SSS at home
Understand the principles of aseptic techniques in clinical procedure	<ul style="list-style-type: none"> • Define aseptic techniques • Explain the concept of aseptic technique • Describe the method of sterilizing equipment • Sterilize equipment according to laid down rules • Identify the contract at packs for various procedure (e.g. dressing packs e.t.c) • Demonstrate the use of mark, glove e.t.c.

COURSE TITLE: DEMOGRAPHY AND POPULATION CONTROL

COURSE CODE: PUB 216

UNIT: 2

GOAL: This course is designed to introduce the student to demography

GENERAL OBJECTIVES:

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

- Understand the meaning and nature of demography
- Understand basic demographic concept
- Understand basic measure of fertility
 - i) Factors affecting fertility
 - ii) Indicators of fertility

Population explosion as a public health problem

Approaches for population control.

Family planning:

- Understand family planning
- Understand hormonal
- Know the barrier methods of family planning
- Know clinical barrier methods of contraception

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand family planning	<ul style="list-style-type: none"> • Define family planning • Benefits of family planning • Explain methods of family planning • Know advantages and disadvantages of family planning
Understand hormonal	<ul style="list-style-type: none"> • Define hormonal • State types of hormonal • Know advantages and disadvantages of hormonal • Know advantages and disadvantages of family planning
Know the barrier methods of family planning	<ul style="list-style-type: none"> • Explain barrier methods of family planning • Know the indication for barrier methods • Types of barrier methods • Instructs the users of barrier methods
Chemical barrier methods of contraception	<ul style="list-style-type: none"> • Define chemical barrier methods • Types of chemical barrier method
Understand the meaning and nature of demography	<ul style="list-style-type: none"> • Nature of demography • Define demography • Explain the subject matter of demography • State and illustrate the types of demography date, vital statistics household, date experimental date, statistics e.t.c • State the source of demography date population censuses, registration of vital events, demography sample survey e.t.c
Understand basic demographic concept	<ul style="list-style-type: none"> • Concept at demography • Define concept at generation
Understand basic measure of fertility	<ul style="list-style-type: none"> • Measure at fertility • Define and compute crude birth rate, general fertility rate and child, women ration • Define and compute age specific fertility rate total fertility rate e.t.c

Terminal methods

Delivery system

National family welfare programme

COURSE TITLE: MEDICAL LAW AND ETHICS

COURSE CODE: MED 223

UNIT: 3

GOAL: This course is designed to enable the student to know the importance of professional ethics in health care delivery system.

GENERAL OBJECTIVES:

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

- Explain the following terms health practitioner, medical ethics, etiquettes, clients, mortality e.t.c
- Discuss the functions of ethics, etiquettes in health professional especially in relation to promotive preventive, curative and rehabilitative health services
- Discuss indiscipline as a branch of professional ethics
- Explain the features of malpractice
- Discuss ethics as a branch of philosophy
- Discuss ethical code of conduct related to:
 - i. Client
 - ii. professional colleagues
 - iii. Health team members
- Explain the rights of practicing health practitioners

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Explain the following terms	On completion of this course, the student should be able to: <ul style="list-style-type: none">• Define health practitioners, medical ethics, etiquettes, clients and mortality e.t.c• State characteristics of professionalism
Discuss the function of medical ethics	<ul style="list-style-type: none">• List and describe the principle of medical ethics• Reasons for teaching medical ethics in health discipline• Explain the significant of professional ethics

Discuss indiscipline as a branch of medical ethics	<ul style="list-style-type: none"> • Define indiscipline • List type of indiscipline • List and discuss cause of indiscipline • State solution to indiscipline
Explain the features of malpractice	<ul style="list-style-type: none"> • Define examination malpractice • Mention types of examination malpractice • Factors responsible for examination malpractice • State and explain solution to examination malpractice
Discuss ethics as a branch of philosophy	<ul style="list-style-type: none"> • Health worker and client relationship • Health worker and professional relationship • Health teams and other professional relationship • Purpose of ethical code of conduct for practitioner
Explain the right of practicing health practitioner	<ul style="list-style-type: none"> • State right of the practicing health practitioners • Mention right of client and patient • State duties of health practitioners • State ethics of health practitioners • State rules and regulations of health workers

COURSE TITLE: REPRODUCTIVE HEALTH

COURSE CODE: RPH 127

UNIT: 3

GOAL: This course is designed to provide the student basic knowledge of reproductive health.

GENERAL OBJECTIVES:

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

- Know the anatomy and physiology of reproductive system
- Understand reproductive health
- Understand the process of pregnancy
- Understand how to monitor pregnant and lactating mother in cline and community

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Know the anatomy and physiology	On completion of this course, the student should be able to: <ul style="list-style-type: none"> • Draw and describe the anatomy and physiology of the female and male reproductive organs e.g vulva vaginal, uterus, fallopian tube, ovaries e.t.c
Understand reproductive health	<ul style="list-style-type: none"> • Define reproductive health • Define pregnancy • Explain changes in pregnancy • Explain types of pelvic • Explain phases of menstrual cycle • Explain changes in the respiratory system
Understand how to monitor pregnant and lactating mother in the client and community	<ul style="list-style-type: none"> • Manage pregnant mother during antenatal • Health education • Nutritional pregnant condition • Define labour • Management of stages of labour • Management of the mother and new born • Define post-natal care.

COURSE TITLE: CLINICAL PROCEDURES AND INSTRUMENTS (EMERGENCY SERVICES)

COURSE CODE: PUB 325

UNIT: 3

GOAL: this course is designed to equip the student with the knowledge and skills to manage emergency situation.

GENENRAL OBJECTIVES:

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

- Understand the term accident and emergency
- Know the types of emergency conation
- Know how to prevent accident at home and in the community
- Know how to manage emergency conations

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the term accident	On the completion of this course, the student should be able to: <ul style="list-style-type: none"> • Define the term accident and emergency

	<ul style="list-style-type: none"> • Define first aid • Explain the rules of first aid • Explain the reason of first aid • Identify the content of a standard first aid bone • Explain the uses of the content of an accident first aid bone
Know the types of emergency condition	<ul style="list-style-type: none"> • List the types of emergency conditions: Shook Fracture Burns Bleeding Acute abdomen Asphyxia Epistaxa Snake bite e.t.c • Discuss each emergency condition under the following: Definitions Types Signs and symptoms e.t.c
Understand the accident prevention measure at home and in the community	<ul style="list-style-type: none"> • Discuss accident prevention measure at home and in the community e.g Keep the environment clean Keep the medicine in locked cupboard Avoid alcohol e.t.c
Understand emergency condition according to rules	<ul style="list-style-type: none"> • Manage above emergency conditions according to rules

COURSE TITLE: EPIDEMIOLOGY AND DISEASE CONTROL

COURSE CODE: PUB 126

UNIT: 3

GOAL: This course is designed to acquaint the student with the knowledge of distribution and determination of disease in population

GENERAL OBJECTIVES:

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

- Understand the concept of epidemiology and infectious disease
- Know the various method of disease transmission
- Understand the principle at control of common communicable disease
- Know the general principle of investigation of epidemics

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the concept of epidemiology and infection disease	<p>On the completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> • Define epidemiology • Define the following terms: incidence, sporadic, endemic, pandemic, antibodies, immunity, surveillance, causative agent, re senior of infection, xarrier, control, prevention, resistance, vector, antigen hyper endemic and meso-endemic • Infection disease process
Know the various method at disease transmission	<ul style="list-style-type: none"> • Explain the various resources of disease conservative agent with examples on each • Explain the following modes of transmission at communicable disease: Contact Inhabitation Infection Perpetration of skin Trans placental
Understand the principles control common communicable disease	<ul style="list-style-type: none"> • State the various method of communicable disease in community • Recognizing the infection and the confirmation at the diagnosis • Notifying the disease to the appropriate • Finding the source and infection • Assessing the entry of the out break
Know the general principle of investigation epidemics	<ul style="list-style-type: none"> • Describe the principle methods of investigation of an epidemic in a community <p>i. Person ii. Place iii. Time iv. Collect and analyze epidemiology date through the following methods: Registration of deaths Notification of disease and reporting of epidemics Laboratory investigation Distribution of animal and or the vectors Epidemiology survey Demographic and environment date</p>

COURSE TITLE: FOODS AND NUTRITION

COURSE CODE: FDN 221

UNIT: 3

GOAL: This course is designed to equip student with the knowledge skills to provide nutritional services.

GENERAL OBJECTIVES:

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

- Understand the concept of basic human nutrition
- Know how to provide comprehensive nutritional service
- Know nutrition disorder
- Understand of intersectional collaboration in establishing and maintenance of income generating activities

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the concept of basic human nutrition	On completion of this course the student be able to: <ul style="list-style-type: none">• Define basic human nutrition• Define food and discuss with the examples and their uses• Explain the importance of adequate nutrition
Know how to provide comprehensive nutrition services	<ul style="list-style-type: none">• Discuss how to provide comprehensive nutrition services in the clinic and home, including: Nutritional assessment Appropriate history and management of children with abnormal growth courses according to standard• Give feedback to the health team on growth monitoring and other nutritional activities• Encouraging exclusive breast feeding• Teaching food handlers (vendors and caterers) on food hygiene and adequate diet• Screening pregnant women on nutritional activities• Supervising health assistance, TBAs e.t.c on nutritional activities
Know nutritional disorders	<ul style="list-style-type: none">• Define of malnutrition, illness caused by improper nutrient, consumption, kwashiorkor miasmas, food preservation,

	dehydration, endemic golfer, causes of obesity and the effect
Understand inter sect oral collaboration in the establishment and maintenance of income generating activities	<ul style="list-style-type: none"> Collaborate with other sectors to establish and maintain income generating activities such as food production, processing, storage and preparation

COURSE TITLE: INTRODUCTION TO MICROBIOLOGY

COURSE CODE: MCB 221

UNIT: 3

GOAL: This course is designed to equip student with the knowledge of the general principles of microbiology.

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

- Understand the history and the scope of microbiology
- Know the microscopic examination of micro organisms
- Understand systemic microbiology
- Understand the effect of environment factors on the growth of micro organisms
- Know the various media for cultivation of micro-organisms
- Understand the microbial pathogen city
- understand safety precautions in microbiology laboratory work
- Understand the diagnostic skills in health technician practice
- Know how to manage a laboratory

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the history and scope of microorganism	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Outline the scope of microbiology <p>Explain the role of microbiology in medicine, agriculture, industry e.t.c</p>
Know the microscopic examination of micro-organism	<ul style="list-style-type: none"> • Explain the principle of microscopy • Identify and describe all types of microscope e.g light microscope, compound microscope, dark field microscope, phase contrast microscope, electron microscope • Examine a drop pf pone water under the light and compound microscope, electron microscope • List and describe various microbial staining techniques e.g gram stain spore stain, flagella stain

	<ul style="list-style-type: none"> Collect and carry out microscope examination of sputum, urine stool, blood e.t.c
Understand systemic microbiology	<ul style="list-style-type: none"> Describe the characteristic of micro-organism Describe the morphological characteristic of the following groups of microorganism, viruses, fungi bacterial protozoa, Algae, Rickettsia, Mycoplasma
Understand the effect of environment factors on the growth of micro-organism	<ul style="list-style-type: none"> Define bacteria growth Describe intrinsic factors Describe extrinsic factors
Understand microbial growth media	<ul style="list-style-type: none"> Define culture media List and describe the composition of the different group of media used in the cultivation of bacteria Classify bacteria according to their growth, characteristics in or on different media Transfer microorganism from one culture media to the other by streaking stabbing e.t.c to obtain pure culture Cultivate and identify microorganisms by growth characteristics
Understand microbial pathogenicity	<ul style="list-style-type: none"> List all major food pathogens and describe their mode at infection, growth pathogenicity and control Isolate bacteria and fungi from dinned food, milk, beverages egg, vegetable meat, bread, water e.t.c
Understand safety precautions in mirror biology laboratory work	<ul style="list-style-type: none"> Describe safety precaution in the handling of other equipment in microbiology laboratory work e.g use of the autoclave, hot oven, water bath, entrifuge and incubator
Understand the diagnostic skills in health technician practice	<ul style="list-style-type: none"> Define terms used in diagnostic skills Explain the concept of diagnostic skills Explain the purpose of diagnostic skills
Know how to manage laboratory	<ul style="list-style-type: none"> Identify the basic equipment needed in the medical laboratory Explain method of taking care of the laboratory Explain how to maintain laboratory hygiene and safety

	<ul style="list-style-type: none"> • Discuss management of laboratory consumables
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COURSE TITLE: CLINICAL PROCEDURE

COURSE CODE: PUB 212

UNIT: 2

GOAL: This course is designed to equip student with the knowledge and skills of clinical procedures.

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

- Understand the clinical procedure
- Know the instrument used for clinical procedures

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the clinical procedure	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Define clinical • list the types of clinical procedure. <p>Such as:</p> <p>(i) History taking</p> <p>(ii) Reading Vital signs such as:</p> <p>Blood pressure</p> <p>Pulse rate</p> <p>Respiration</p> <p>Temperature</p> <p>Weight measurement</p> <ul style="list-style-type: none"> • Oral hygiene • Tepid bathing • Preparation and administration of SSS/ORS • Bed making • Wound dressing • Arm circumference • Using of card in the clinic • Hemoglobin estimation • Specimen collection • Sterilization of materials • Setting of tray for injection • Treatment of emergency cases such as accident, first aid • Uses of injection and their route of administration

Know the instrument used for clinical procedure	<ul style="list-style-type: none"> Identify the different types of instrument used for clinical procedure Know how to use the mentioned above Maintenance of the instrument used in the clinic
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COURSE: ADVOCACY SITUATION ANALYSIS AND COMMUNITY DIAGNOSIS

COURSE CODE: PUB 213

UNIT: 3

GOAL: This course is designed to equip student with the knowledge and skills of advocacy situation analysis and community diagnosis.

GENERAL OBJECTIVES:

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

- Understand the concept of advocacy
- Understand the concept of community diagnosis
- Understand the concept of community mobilization
- Know how to carry out situation analysis
- Know how to implement PHC at the LGA of under

GENERAL OBJECTIVES	PERFORMNCE OBJECTIVES
Understand the concept of advocacy	<p>On completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> Define Advocacy State rationale for advocacy List the step and levels in advocacy
Understand the concept community mobilization in PHC	<ul style="list-style-type: none"> Define community mobilization Describe the following: <ul style="list-style-type: none"> Rationale Role of community mobilization in PHC Steps involved in community mobilization <ul style="list-style-type: none"> Describe various PHC committees under the following headings: <ul style="list-style-type: none"> Title of the committee Composition of the committee Terms of reference Inter-relationship with other committees

Understand the importance of community diagnose in primary health care(PHC)	<ul style="list-style-type: none"> • Define community diagnosis • Discuss the role of community diagnosis in PHC • Describe common methods used in community diagnosis such as, observation, interview of existing records • Explain rationale for community diagnosis in PHC • Describe the steps in carrying out community diagnosis
Know how to carry out situation analysis	<ul style="list-style-type: none"> • Define situation analysis • Describe the instruments used in situation from H for household, from C for children and from F married women under 50 years and women who have never been pregnant • Discuss the importance of situation analysis in primary care • Describe the steps in situation analysis
Know how to implement PHC at the LGA	<ul style="list-style-type: none"> • Implement PHC plan at the LGA • Describe and discuss house numbering • Describe the home based record • Discuss the importance of base record • Describe how to assign PHC code number to family members: Card will be issued to children and adults who resides in a particular place while those who live else will be registered in places where they are physically present Children who are in residential institution should be registered at home and take their cards with them to their respective institution When home based records are issued, the clinic master card must be completed at the same time for the individual in the appropriate household • Reason for using home based records • Describe the clinic master card

COURSE TITLE: MEDICAL TERMINOLOGY

COURSE CODE: MET 125

UNIT: 3

GOAL: This course is designed to equip student with the knowledge and skills of medical terminology.

GENERAL OBJECTIVES:

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

- Understand the medical terminology
- Know the component of medical technology
- Understand acronyms, homonyms, synonyms and eponyms
- Understand symbols used in health practices
- Understand phobia, phalli e.t.c

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Explain the word medical terminology	On completion of this course the student should be able to: <ul style="list-style-type: none">• Know what the term medical is• What the importance of medical term is• Objective of medical terminology
Component of medical and meaning suffixes and meaning	<ul style="list-style-type: none">• List of prefixes• List of suffixes• List of stem and meaning
Acronyms, Homonyms, Synonyms and Eponyms	<ul style="list-style-type: none">• Explain acronyms• Explain Homonyms• Explain Synonyms• Explain Eponyms
Symbols used in health practice used	<ul style="list-style-type: none">• List the symbols and signs in health practice
Phobia, phalli	<ul style="list-style-type: none">• Explain phobia• Explain phalli• Explain mania• Explain and list medical and meaning

COURSE TITLE: PUBLIC HEALTH INFORMATION, EDUCATION AND COMMUNICATION

COURSE CODE: PUB 215

UNIT: 2

GOAL: This course is designed to equip the student on the knowledge and skills on information Education and communication (IEC) to community mobilization and participation.

GENERAL OBJECTIVES:

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

- Understand the concept of community

- Understand the socio cultural factors that influence health behaviour in the community
- Understand community mobilization for health action
- Understand the general concept of IEC

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the concept of community structure	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define community • Describe the organizational hierarchy of a community under the following: <p>Leadership (modern and traditional)</p> <p>Households structure (power and decision making)</p> <p>Organizational structure (modern and traditional)</p>
Understand the socio cultural factor that influence health behaviour	<ul style="list-style-type: none"> • Discuss harmful traditions and culture that influence health behaviour and health action towards replacing them • Explain harmful traditions and culture that influence health behaviour and health action towards encouraging them • Explain some harmful tradition and culture that has no effect on health behaviour in the community
Understand community mobilization for health action	<ul style="list-style-type: none"> • Discuss the importance of community mobilization for health action • Describe various PHC committees
Understand the general concept of IEC	<ul style="list-style-type: none"> • Define IEC • Define health education • Explain the principles health education: Clarity <p>Simplicity</p> <p>Adaptability</p> <p>Endurance of understanding</p> <ul style="list-style-type: none"> • Explain the types of communication <p>Verbal</p> <p>Non verbal</p> <p>Town criers e.t.c</p>

COURSE TITLE: OCCUPATIONAL HEALTH AND SAFETY

COURSE CODE: PUB 214

UNIT: 2

GOAL: This is designed to equip student with the knowledge and skills to promote, protect and prevent early deviate from normal health of workers in their work environment.

GENERAL OBJECTIVES:

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

- Understand occupational health services
- Know common occupational health hazards in the community and be able to manage them appropriately
- Understand occupational diseases according to their classification
- Understand factory in relation to occupational health services
- Understand industrial accident and safety know how to collaborate with occupational authorities and government regulating bodies to promote safe working environment

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand occupational health services	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define occupational health • Discuss the principles and practice of occupational health and safety
Know common occupational health diseases in the community and be able to manage them appropriately	<ul style="list-style-type: none"> • Discuss occupational disease under the followings: Biological: Bacteria (Cataract, Arthritis), viral (HIV/AIDS, Viral Hepatitis), Helminthes, Protozoans, Fungi Spores. Chemical: Pneumoconiosis, Silicosis, Bargassosis e.t.c • Discuss each diseases under the following headings: Causes/sources Signs and symptoms Prevention and controls <ul style="list-style-type: none"> • Treatment according to procedure Referral Follow up
Understand occupational health hazard according to their classification	<ul style="list-style-type: none"> • Discuss occupational hazards, under the following: Physical hazards: noise, light, vibration, heat e.t.c Chemical hazard: gases, lead, mercury, fume, solids, solvents e.t.c Psycho-social hazard: stress, poor work environment, poor motivation to work
Understand the factory act in relation to occupational health services	<ul style="list-style-type: none"> • Discuss the factory act in relation to health provision, welfare services, safety services e.t.c

Understand industrial accident and safety	<ul style="list-style-type: none"> Define industrial accident and safety Discuss the causes of industrial accident Explain the prevention / control of industrial accidents
Know how to collaborate with occupational authorities and government regulating bodies	<ul style="list-style-type: none"> Explain the role of the following in promoting safety in work environment <p>Local government State ministry of health Federal ministry of health Environmental and labour work force Local and international NGOS e.t.c</p>

COURSE TITLE: MATERNAL AND CHILD HEALTH

COURSE CODE: MCH 212

UNIT: 3

GOAL: This course is designed to provide the student with the necessary knowledge and skill needed to understand the maternal and child health.

GENERAL OBJECTIVES:

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

- understand the concept of maternal health
- Understand the fetus development
- Understand perinea and episiotomy
- Understand the meaning of Abortion, Pregnancy immunization Labour, Management of pauperism causes of neonatal health
- understand the categories of children
- Understand the meaning of breastfeeding
- Understand the definition of circumcision

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Know the definition of maternity health	<p>On completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> Definition of maternal health Aim and objectives of maternal health, introduction to (i) Menstrual cycle (ii) Pelvic floor (iii) Muscles
Know introduction to foetal development	<ul style="list-style-type: none"> Introduction to foetal development The physiological changes due to pregnancy are to be studied under the following: <ul style="list-style-type: none"> i. Diet in pregnancy ii. Relief of pain in labour

	iii. Vagina examination iv. Foetal circulation
Understand perineal tear and episiotomy	<ul style="list-style-type: none"> • Definition of perineal tear • Definition of episiotomy
Understand the meaning of abortion, type of abortion, pregnancy immunization, labour, management, management of puerperium, cause of neonatal death, still birth	<ul style="list-style-type: none"> • Definition of abortion • Types of abortion • Aim and objectives of pregnancy immunization • Introduction to labour • Stages of labour • The management of puerperium <ul style="list-style-type: none"> (i) Causes of neonatal death (ii) Causes of still birth • Introduction to the rupture of the uterus • Cord prolapsed and placental at time
Understand introduction to child health	<ul style="list-style-type: none"> • Introduction to child health • Aims and objectives of child health
Understand the categories of children	<ul style="list-style-type: none"> • Categories of children • Growth and development • Childhood morbidity and mortality
Understand the meaning of breast feeding	<ul style="list-style-type: none"> • Definition of breast feeding • Conditions of breast feeding
Understand the definition of circumcision	<ul style="list-style-type: none"> • Definition of circumcision • The benefit associated with circumcision

COURSE TITLE: ANATOMY AND PHYSIOLOGY II

COURSE CODE: ANA 123

UNIT: 3

GOAL: This course is designed to acquaint the student the knowledge of the system of the body and their functions, and clinical importance.

GENERAL OBJECTIVES:

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

- Understand the nervous system
- Understand the endocrine system
- Understand respiratory system
- Understand the digestive system
- Understand the urinary system
- Understand the skin
- Understand the skeletal system
- Understand the muscular system

- Understand the special sense
- Understand the reproductive system

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the nervous system	<p>On completion of this course, the students should be able to:</p> <ul style="list-style-type: none"> • List the division of the nervous and describe the characteristics of each • Describe the structure of nervous system and the function of components • Describe the location structure and general functions of neurological cells • Describe the structure and functions of synapse • List the part of reflex arc, brainstem and diencephalons and describe or give their functions • Describe the structure, position and function of the midbrain, pons medulla oblongata and reticular activating system, the basal nuclei and hypothalamus • Describe the three meningeal layers surrounding the central nervous system • State the origin of the paired spinal nerves • Outline the functions of the 12 cranial nerves • List the 5 various forms of plexus nerves • State the 2 division of the autonomic nervous system and central nervous system • Discuss the neurotransmitters of the two division • Explain the effects of stimulations of the two on the body system
Understand the endocrine system	<ul style="list-style-type: none"> • List the composition of endocrine system and show the location of the organs of endocrine system in the body • Give the description of the hypothalamus and the pituitary gland
Understand the skin	<ul style="list-style-type: none"> • Describe the structure and functions of the skin

	<p>(hypodermis, dermis and epidermis)</p> <ul style="list-style-type: none"> • Explain how melanin, carone, blood and collagen affected the skin • List and discuss the disease conditions affecting the skin
Understand the skeletal system	<ul style="list-style-type: none"> • Describe the various types of bones, their structure and functions • Explain the component of the skeletal system • Discuss the development of the above (ossification and repairs) • Explain the different structure in between the male and female pelvis • List and discuss the common conditions affecting the skeletal system
Understand the muscular system	<ul style="list-style-type: none"> • Identify and describe the various types of muscles their locations and functions • Describe the healing at damage muscles • Describe the common condition affecting the muscular system
Understand the reproductive system	<ul style="list-style-type: none"> • Describe the structure and functions of the organs of male and female reproductive system • Discuss the main charges occurring at the puberty in the male and female • Describe the menstrual cycle • Define menopause and andropause, and describe the changes that result from them • Describe the common conditions affecting the reproductive system
Understand the special senses	<ul style="list-style-type: none"> • Define sensation and describe the structure of the eye • List the accessory structure of the eye and explain their function • Name the muscles of the eyelid and state their function • Explain the different in function between the rod, and cones • Describe the chambers of the eye and fluid they contain • Explain how the images are focused on the retina

	<ul style="list-style-type: none"> • Describe the structure of the outer, middle and inner of the ear • Explain the physiology of hearing • Describe the structure and functions of a taste bud • Describe the physiology of smell • Describe major eye defects • Describe major hearing disorders
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COURSE TITLE: INTRODUCTION TO PHARMACOLOGY

COURSE CODE: PHM 212

UNIT: 3

GOAL: This course is designed to enable the student with the knowledge of pharmacology.

GENERAL OBJECTIVES:

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

- Understand the principle of pharmacodynamics and pharmacokinetics
- Understand the origin of drugs
- Pharmacological terminologies and prescription abbreviation
- Understand drug names
- Know the classification of drugs
- Know the routes of drug administration

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Define pharmacology	On completion of this course, the student should be able to: <ul style="list-style-type: none"> • Understand the concept of pharmacology and the broad definition including history
Define the principle of pharmacology	<ul style="list-style-type: none"> • Understand the principle of drug discipline. Metabolism, distribution and elimination, ceiling effect systems effect and availability
Original drugs	<ul style="list-style-type: none"> • Understand the different source of drug i.e. plant, animals, chemical, minerals • Under the history of drug origin in relation to modern pharmaceutical practice
Pharmacological terminologies and prescriptive abbreviation	<ul style="list-style-type: none"> • Explain the use of pharmacological terminologies e.g drugs, medicine, therapeutic, side effect, adverse drugs, reaction e.t.c as used in pharmacological approach to therapy

	<ul style="list-style-type: none"> • Know the different commonest types of prescriptive abbreviations used in medical practice
Drug names	<ul style="list-style-type: none"> • Define drugs to have 3 names: chemical, generic and brand • Identify and discuss several drugs using
Classification of drugs	<ul style="list-style-type: none"> • Discuss the classification of drugs based on (i) forms (ii) functions. • Know the different forms i.e. solid, liquid, semisolid etc • Know the therapeutic function of drug classification in terms of use i.e analgesic, antibiotics anti parasitic, anticancer, antihistamine e.t.c • Discuss extensively the commonly used medication belonging to the classes mentioned above
Routes of drugs administration	<ul style="list-style-type: none"> • Define the major therapeutic objectives in choosing a route • Identify the 3 major routes of drug administration as (i) central (ii) parental (iii) topical • Explain and justify the use of several other routes of drugs and administration such as intra-synorial e.t.c

COURSE TITLE: EPIDEMIOLOGY OF COMMUNICABLE & NON-COMMUNICABLE DISEASES

COURSE CODE: PUB 224

UNIT: 3

GOAL: This course is designed to provide the student with the necessary knowledge and skills needed to understand the basic principle of non-communicable and disease and its component and way to control it

GENERAL OBJECTIVES:

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

- Understand the correct of non-communicable disease in public health chrome disabling conditions
- Understand communicable disease
- Know the control measure of communicable disease
- Screening for early and symptomatic condition cancer

- Understand heart disease, renal and urinary tract disease, the nature of diabetes, respiratory disease prevention maculate disorders, neurological disorder, disability visual disorder, psychiatry disorder, childhood cognitive etc
- Know about HIV/AIDs

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the concept of non-communicable disease	On completion of this course, the students should be able to: <ul style="list-style-type: none"> • Define non communicable disease • Define public health and chrome disabling conditions
Understand communicable disease	<ul style="list-style-type: none"> • Define the term communicable disease • Identify the causative organism • Identify the modes of transmissions • Describe the clinical signs and symptoms
Know the control measure of communicable disease	<ul style="list-style-type: none"> • Identify the control measure such as: <ul style="list-style-type: none"> • Early diagnosis and treatment • Immunization e.t.c • Explain the following policies and instruction strategies
Screening for early and a symptomatic condition cancer	<ul style="list-style-type: none"> • Define screening how assessment • Know classification source of Include and mortality rates • Magnitude of the cancer problems • Relatives importance of specific neoplasm • Etiology and primary prevention cancer control and prevention • Comprehension cancer control • Screening and secondary prevention • Goal for cancer reduction • Planning a screening programme • Strategies for prevention effort • Current cancers sponsorship
Understand heart disease renal and urinary tract disease, respiration disease, prevention, the nature of diabetes, know muscular skeletal disorder childhood capture	<ul style="list-style-type: none"> • The definition of the disease, knows classification of selected causes and Know general prevalence studies
Know about HIV/AIDs and some other related disease STD	<ul style="list-style-type: none"> • Describe HIV/AIDs under the following heading: Definition Conservative organism

	<p>Mode at</p> <p>transmission</p> <p>Clinical signs and symptoms</p> <p>Prevention and control measure</p> <p>Provide appropriate education and support services to HIV/AIDs partials</p>
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COURSE TITLE MENTAL HEALTH

COURSE CODE: PUB 225

UNIT: 2

GOAL: This course is designed to enable the student to carry out mental health.

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

- Understand mental health
- Know positive mental health habits
- Know the preventive of mental illness

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand mental health	<p>On completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> • Define mental health • Quality of mentally • Define mental illness • List and discuss cause of illness • Classify mental illness
Know positive mental health	<ul style="list-style-type: none"> • Discuss positive mental health habits. <p>Such as: Adequate nutrition, Adequate rest and sleep, Love</p>
Know the preventive measure of mental illness	<ul style="list-style-type: none"> • Explain the preventive measure mental illness: such as Accident prevention, Early detection and abnormal behaviour

COUOURSE TITLE: ENTREPRENEURSHIP

COURSE CODE: GNS 312

UNIT: 2

GOAL: This course is designed to introduce the student to the principle of management of entrepreneurship

GENERAL OBJECTIVES:

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

- Know the entrepreneurship
- Understand government involvement in entrepreneurship in Nigeria

- Understand financial entrepreneurship
- Understand financial management in entrepreneurship

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Know the nature of entrepreneurship	On completion of this course, the students should be able to: <ul style="list-style-type: none"> • Define the nature and scope of entrepreneurship • Describe the problem associated with entrepreneurship • Describe the benefits and frustration of being self employed
Understand government involvement in entrepreneurship in Nigeria	<ul style="list-style-type: none"> • Explain government policies for entrepreneurship through direct and indirect assistance • Discuss the role of specific entrepreneurship such as state ministries of commerce and industries CMD, NDR, Development strategy, cooperative Bank e.t.c • Identify specific incentives provided by government
Understand financing of entrepreneurship	<ul style="list-style-type: none"> • Appraise the estimated needed • Identify sources of funds • Explain the role of specialized institutions • Explain how to generate short term and long-term credits
Understand financial management in entrepreneurship	<ul style="list-style-type: none"> • Explain the need for sound financial management • Discuss the preparation of loan payment schedule • Discuss how to determine the breakeven point • Discuss the problems of financial management in entrepreneurship

COURSE TITLE: MANAGEMENT AND ADMINISTRATION OF HEALTH PROGRAMME

COURSE CODE: PUB 226

UNIT: 2

GOAL: This course is designed to equip the student with the skill on how to manage health programme.

GENERAL OBJECTIVES: On completion of this course the student should be able to;

- Understand management and administration
- Understand the basic principle and contacts management
- Understand the qualities of a manager
- Understand the principle of environment health administration

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand management and administration	<ul style="list-style-type: none"> • Define management • Define administration • Different between management and administration
Understand the basic principle and content of management	<ul style="list-style-type: none"> • Identify and discuss traditional administrative theories • State and discuss basic management theories • Describe management functions • Describe organization structure
Understand the quality of a manager	<ul style="list-style-type: none"> • Describe a manager • State and discuss the quality of an effective manager • Discuss leadership style, leadership roles, motivation and communication in E&T Management • Describe the process of E&T manpower, planning, development and recruitment • Describe the relationship between E&T professional and other health related professionals
Understand the principle of environment health administration	<ul style="list-style-type: none"> • Define environmental health • List and explain the component of environmental health policy • Environment health relationships and problems • Apply system approach in environmental health administration • Explain environment health policy and programme planning • Identify environment resources and their management • State the steps in environment health programme administration: <p>EHP Planning EHP Implementation EHP Monitoring and evaluation EHP Information management</p> <ul style="list-style-type: none"> • Discuss the application in EHP Management and administration

COURSE TITLE: SCHOOL HEALTH SERVICES

COURSE CODE: PUB 227

UNIT: 2

GOAL: This course is designed to enable the student know the school health services.

GENERAL OBJECTIVES:

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

- Understand the introduction to school health services
- Understand the need of school children
- Identify common ailment in school children
- Understand the importance of school inspection

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVE
Understand the introduction to school services	On completion of this course, the students should be able to: <ul style="list-style-type: none">• Introduction• Aims and objectives of school health services• Importance of school health services
Understand the need of school children	<ul style="list-style-type: none">• Needs of school health include: Good housing, clothing and Education• Good sight, caring and speech• School meat services• Objectives of school meat services
Identify common ailments in children	<ul style="list-style-type: none">• Malaria, cough, wound, skin school infections, e.g scabies, ring worm e.t.c
At the end of course, the student should be able to know the importance of school inspection	<ul style="list-style-type: none">• Advantages of school clinic• Inspection of school premises

COURSE TITLE: MANAGEMENT OF ESSENTIAL DRUGS

COURSE CODE: PUB 222

UNIT: 2

GOAL: This course is designed to equip the student with the knowledge and skills to enable them manage essential drugs and revolving funds and pre-packaging and dispensing of drugs.

GENERAL OBJECTIVES:

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

- Understand the management essential drugs and supply system
- Understand how to calculate drugs need/requirement of a community
- Understand the concept and management of the drug revolving fund

- Understand the operation of drug revolving fund
- Understand the pharmacology drugs in the essential drug list

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the management of essential drugs and supply system	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Define management of essential drugs and supplies system • Explain the objectives of the national essential drugs programme (NEDP) • Describe the step for management of essential drugs programme • State the criteria for selecting essential drugs • List the steps at ordering drugs • Enumerate the step involved in stocking drugs • Describe the step involved in issuing drugs • Explain ore-packaging of drugs and its merits
Understand how to calculate drugs need/requirement at a community	<ul style="list-style-type: none"> • Explain the method used in the quantification of drugs
Understand the concept and management of drugs revolving fund	<ul style="list-style-type: none"> • Discuss the concept of drug revolving fund (DRF) • Discuss steps for setting up a DRF • Describe the advantages of DRF • Explain the reasons why DRF fail
Understand the pharmacology of drugs in the essential drug list	<ul style="list-style-type: none"> • Describe the drugs in the essential drugs list under the following: Generic name Indications Contra-indication Toxicity e.t.c

COURSE TITLE: CLINICAL PROCEDURE

COURSE CODE: PUB 212

UNIT: 2

GOAL: This course is designed to equip student with the knowledge and skill in practical procedures, to enhance effective health care delivery

GENERAL OBJECTIVES:

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

- Know the procedure involve in wound dressing
- Know the content of the cold box
- Understand the procedure of immunization of clients against specific disease
- Know the routes at administration of injection and how to give injection
- Understand the administration of drugs
- Understand method used in collection of urine specimen
- Understand the procedure of urine testing
- Know how to estimate hemoglobin using appropriate procedure
- Know how to carry out oral toilet
- Understand the procedure for visual activity
- Know the procedure for breast self-examination
- Understand the procedure for assessing the nutritional status at a child

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Know the procedure involve in wound dressing	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Define wound • Describe the types of wound • Classify wound according to types • Prepare a trolley/tray for wound dressing • Dress wound applying aseptic techniques • Remove suture from wound • Describe principle and techniques at bandaging • Apply technique to bleeding limb
Know the contents of a cold box	<ul style="list-style-type: none"> • Explain the cold box and its us • Identify the content of cold box • Define the cold chain system • Mention a cold chain system
Understand the procedure of immunization of clients against specific disease	<ul style="list-style-type: none"> • Define immunization • List various vaccine used in immunization of clients • Mention the routes of administration of these vaccine • List the immunizable disease • Set immunization tray • Educate clients adequately on reason for immunization • Carry out immunization under specific techniques
Know the route of administration of injection	<ul style="list-style-type: none"> • List various of administering injections • Describe the various method of administering injection

	<ul style="list-style-type: none"> • Prepare injection tray/trolley in accordance with basic requirement • Identify the site for injection • Administer injection by aseptic technique • Calculate flow of infusion as per need
Understand the administration of drugs	<ul style="list-style-type: none"> • Describe drug • Identify the route of drugs administration • Set tray/trolley for drugs administration • Describe the procedure for drug administration peculiar to the different route, noting, colour, label sedimentation, expiry date e.t.c • Administer drugs
Understand the methods used in collection of urine specimen	<ul style="list-style-type: none"> • Explain the various urine specimen • Identify the various containers for urine collection • Educate client on preparation of self before collection of urine specimen e.g mid stream urine • Collect urine specimen for laboratory test
Understand the procedure for testing urine	<ul style="list-style-type: none"> • Identify various request for different urine test • Explain the normal and abnormal constituents of urine e.g water 96% et.c • Discuss the cause of these abnormalities mentioned above • Observe the colour, odour, quantity, reaction specific gravity of urine • Interpret result according to guidelines
Know how to estimate haemoglobin using appropriate procedure	<ul style="list-style-type: none"> • Mention reason for haemoglobin estimation • Discuss the different methods used in haemoglobin estimation • Perform haemoglobin estimation using appropriate methods • Read and interpret the haemoglobin level
Know how to carry out oral toileting	<ul style="list-style-type: none"> • Define oral toilet • set tray for oral toilet • Prepare client for oral toilet • Carry out procedure

	<ul style="list-style-type: none"> • Explain the preventive and control measure of mouth infection
Understand the procedure for visual activity	<ul style="list-style-type: none"> • Define vision • Identify different methods in carrying out visual activity result • Carry out visual activity test • Describe the five levels of vision • Interpret visual acuity result
Understand the procedure for breast self-examination	<ul style="list-style-type: none"> • Describe the anatomy of the breast • Identify the various steps in self breast examination • Identify breast changes during pregnancy • Carry out breast self-examination
Understand the procedure for assessing the nutritional status of a child	<ul style="list-style-type: none"> • Explain the method used in assessing the nutritional status of a child • List factors that affect nutritional status of a child • Identify the different weighing scales • Identify the appropriate scale of age • Test the weighing scale and balance at zero before use • Involve mother in the process of weighing • Chart and interpret finding • Assess nutritional status of the child • Place child's arm in a comfortable and relaxed manner • Measure mid arm circumference correctly with the use of the trip • Identify the different colours on the strip • Interpret the colour accurately

COURSE TITLE: EYE CARE

COURSE CODE: PUB 313

UNIT: 2

GOAL: This course is designed to equip the student with knowledge and skill to identify, manage and refer community eye problems accordingly.

GENERAL OBJECTIVES:

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

- Understand the incidence of eye problems
- Know how to mobilize the community to understand the relationship between unhygienic practice and eye problems
- Know how to manage eye condition according to procedure

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the incidence of eye problems	On completion of this course the student should be able to: <ul style="list-style-type: none">• Describe the anatomy and physiology of the eye• Identify common eye problems in the community (e.g. trachoma, glaucoma, cataract)• Enumerate the signs and symptoms of the major community eye conditions• Identify the common causes of blindness in the community with a view of reducing its occurrences and completion
Know how to mobilize the community to understand the relationships between unhygienic practice and eye problems	<ul style="list-style-type: none">• Discuss unhygienic practices that increase the incidence of eye problem in the community• Identify practices in the community that promote the reduction of incidence of eye problem in the community• Mobilize the community to participate in community eye care programmers
Know how to manage eye condition according to procedure	<ul style="list-style-type: none">• Manage eye condition according to procedure

COURSE TITLE: CARE FOR THE PHYSICALLY CHALLENGED

CODE: PUB 313

UNIT: 2

GOAL: The course is designed to provide the student with necessary knowledge of care of the physically challenged

GENERAL OBJECTIVES:

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

- Understand the introduction to cure the physically challenged

- Understand the definition of disability
- Understand the management of disability

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the introduction to care of the handicapped	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Introduction to the term physically challenged • Who are the physically challenged
Understand the definition of disability	<ul style="list-style-type: none"> • Definition of disability • Aims and objectives for care of people with disability • Common disability condition in the community • Classification of disability • Causes of disability
Understand the management of disability	<ul style="list-style-type: none"> • Management & rehabilitation of disability • Definition of rehabilitation

COURSE TITLE: GERIATRICS

CODE: PUB 314

UNIT: 2

GOAL: The course is designed to provide the student with basic knowledge of geriatrics

GENERAL OBJECTIVES:

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

- Understand the introduction to geriatrics
- Understand the problems of the aged
- Understand the treatment and service to meet the need of the elderly
- Understand the management of the old age

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the introduction to the care of the aged	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define geriatrics • Know the categories of geriatrics • State the characteristics of the aged
Understand the problems of the aged	<ul style="list-style-type: none"> • Social problems of the aged • Medical problems of the aged
Understand the treatment and services to meet the need of the elderly	<ul style="list-style-type: none"> • Know the provision of the services to meet the need of the elderly • Know the provision of treatment for the elderly

Understand the management of old age	<ul style="list-style-type: none"> • Know the management of old age • Know the resource and facilities available to help the aged
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COURSE TITLE: EAR, NOSE AND THROAT CARE

COURSE CODE: PUB 315

UNIT: 2

GOAL: This course is designed to reduce the incidence of preventable ear, nose and throat condition in the community/public.

GENERAL OBJECTIVES

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

- Know how to recognize and treat ear, nose and throat disease
- Understand the completion from ear, nose and throat disease through early treatment and refer to a specialist centers
- Know how to mobilize the community to identify the link between unsafe ear, nose and throat practice ear, nose and throat disorder and related impairment

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand how to recognize and treat ear, nose and throat disease throat organs	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Describe the anatomy of the ear, nose and throat organs • Identify diseases and condition of the ear, nose and throat organs <p>Enumerate the signs and symptoms of ear, nose and throat disorders identified above</p> <p>Treat the disease condition according to the procedure</p>
Understand the complication form ear, nose and throat disease through early treatment and referral to specialist centres	<ul style="list-style-type: none"> • Discuss the completion from ear, nose and throat disease and conditions • Identify referral centres for specialist care
Know how to mobilize the community to identify the link between unsafe ear, nose and throat disorders and related impairment	<ul style="list-style-type: none"> • Identify unsafe practices in the community associated with disorders of the ear, nose and throat • Discuss the process of mobilizing the community against unsafe ear, nose and throat practice • Identify resources in the community for the promotion of ear, nose and throat care

COURSE TITLE: MEDICAL DIAGNOSIS

COURSE CODE: MED 212

UNIT: 2

GOAL: This course is designed to enable the student to know the importance of medical diagnosis in health care delivery.

GENERAL OBJECTIVES:

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

- Understand basic medical diagnosis
- Know the common laboratory accidents
- Know the principles of collection and labelling of specimen
- Know the microscope, and how to use the microscope
- Identification of protein and glucose in urine
- Know the principles of examination of blood parasite

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand basic medical diagnosis	On completion of this course the student should be able to: <ul style="list-style-type: none">• Define laboratory• Aim of laboratory services• Outline laboratory instrument• Outline laboratory reagent
Know the common laboratory accidents	<ul style="list-style-type: none">• Enumerate common laboratory accidents• First aid in laboratory accidents• List of first equipment for laboratory• Explain safety precautions in the laboratory
Know the principles of collection and labelling of specimen	<ul style="list-style-type: none">• Define the term specimen• Method of collection of pathological specimen• Types of pathological specimen• Examination of stool specimen• Test for blood in stool
Know the microscope and how to use the microscope	<ul style="list-style-type: none">• Define the term specimen• Identify different parts of microscope• Explain how to use microscope• Explain how to take of microscope
Identification of protein glucose in urine	<ul style="list-style-type: none">• Procedure for sulphosalicylic acid• Detection of glucose in urine

	<ul style="list-style-type: none"> • Urine microscopy
Know the principles of examination of blood parasite	<ul style="list-style-type: none"> • Detection of malaria parasites • Types of malaria parasites • Preparation of blood film and examination of malaria parasites • Procedure for skin snip and wet blood preparation

COURSE TITLE: RESEARCH METHODOLOGY

COURSE CODE: GNS 311

UNIT: 3

GOAL: This course is to equip student with knowledge of research methodology. To be inquisitive innovative, discretionary and to present research outcome in logical order.

GENERAL OBJECTIVES:

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

- Explain the meaning of research
- Explain the features of research methods
- Describe the approach to research
- Describe the design and planning at a research
- Explain sampling techniques
- Explain the use of statistics in research
- Describe the conduct of research and presentation
- Explain systematic review and meta-analysis

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVE
Explain the meaning of research	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Define research • List and describe example of researches e.g. historical descriptive, experimental e.t.c • Explain the aims of research
Explain the features of research methods	<ul style="list-style-type: none"> • Meaning of research Methodology • Explain research methods • List and explain the methods of conducting research (e.g. survey)
Describe approach to research.	<ul style="list-style-type: none"> • Choose a field of research • Formulate a research title • Search for useful source of information on field for research (e.g museums, market. Hospital, library internet e.t.c) • Compile an index cards system for research title.
Describe the design and planning of a research.	<ul style="list-style-type: none"> • Explain research design e.g descriptive analytic experimental/quasi experimental.

	<ul style="list-style-type: none"> • Give example of research design • List and explain the tools to be applied in the research design e.g intervention and non-intervention studies, and observation. • Explain the merits and demerits of various research • Choose any of the research method, most appropriate to your research (project)
Explain sampling techniques	<ul style="list-style-type: none"> • Define sampling • List types of sampling (e.g. stratified, random, e.t.c) • Explain the type of sampling above • Explain the advantages and disadvantages of each type of sampling above. • Choose the sample size at population appropriate your research • Identify any of the methods above for particular research.
Explain the use of statistics in research	<ul style="list-style-type: none"> • Define base statistic • Identify the tests used to base statistics e.g T test e.t.c • Explain the characteristic of each of the text above • Determine the suitability of each of the text
Describe the conduct of research and presentation result	<ul style="list-style-type: none"> • Carry out the experiment for the research using and research design above • Collect data for the experiment above • Analyze the date using appropriate methods • Interpret the results obtained from the research • Write up the report of the research conducted under the following headings.

COURSE TITLE: ORAL HEALTH

COURSE CODE: PUB 321

UNIT: 2

GOAL: The course is designed to provide the student with the knowledge of oral health

GENERAL OBJECTIVES:

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

- Understand the meaning of oral health and explain the anatomical structure of the mouth
- Understand the importance of oral health to the community
- Understand the different types of tooth loss and brush chewing stick
- Identify tooth parts and the composition of tooth
- Identify tooth parts and the composition of tooth

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the meaning of oral health and explain the anatomical structure of the mouth	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Definition of oral health • Explain the structure of the mouth • Definition of periodontium • State the components of periodontium
Understand different types of tooth brush	<ul style="list-style-type: none"> • Differentiate chewing stick from tooth brush • Know the different method • mention the different types of tooth brush and chewing stick
Understand the importance of oral health to the community	<ul style="list-style-type: none"> • State the importance of oral health to the community • Know what community contribution should be
Identify common causes of teeth loss	<ul style="list-style-type: none"> • Causes of teeth loss • Prevention of dental carries • Identify the parts of the tooth • State the composition tooth

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
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	•
	•

COURSE TITLE: INTRODUCTION TO IMMUNITY AND VACCINATION

COURSRE CODE: PUB 221

UNIT: 3

GOAL: This course is designed to provide the student with basic knowledge of introduction to immunology

GENERAL OBJECTIVES

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

- Understand the introduction to immunology
- Know the definition of terminologies
- Understand the components of immune system
- Understand immunization
- Understand the concept of immunization
- Understand immunization service
- Know how to manage the cold chain and storage system

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Introduction to immunology	On completion of this course the student should be able to: <ul style="list-style-type: none">• Understand immune system as an adaptive defence system• Explain immune response and its categories• Differentiate between the categories of immune response
Definition of terminologies	<ul style="list-style-type: none">• Define immunology• Define immunity• Define antigen• Define antibodies• State types of antibodies
Components of immune system	<ul style="list-style-type: none">• Explain component of immune system• Explain antigenic agent and disease caused by each agent
The immune reaction (how body resist diseases)	<ul style="list-style-type: none">• Explain mechanisms involved in the immune reaction• Define each mechanism• Explain ways in which body resist disease in each mechanism involved• Define immunity• Describe different type of immunity• State factors affecting immunity
Understand immunization and immune-diagnosis	<ul style="list-style-type: none">• Define immunization• Classify immunizing agents• Describe immune-diagnosis such as complement fixation, ELISA, immunofluorescence etc

	<ul style="list-style-type: none"> State recommended active immunization.
Understand the concept at immunization	<p>On completion of this course, the student should be able to:</p> <ul style="list-style-type: none"> Define immunity Discuss immunity and factors affecting individual resistance of diseases
Understand immunization services	<ul style="list-style-type: none"> Define immunization Discuss disease with local names which are preventable by immunization Explain the immunization schedule Describe how to trace decanter State the importance at keeping record of immunization activities
Know how to manage the cold chain and storage system	<ul style="list-style-type: none"> Discuss the cold chain system Demonstrate how to estimate, and request for vaccine and other cold chain equipment Describe types and methods of sterilization of equipment Discuss the maintenance of materials and equipment Discuss about vaccine viral monitor (VVM)

COURSE TITLE: FOODS AND NUTRITION

COURSE CODE: FDN 221

UNIT: 3

GOAL: The course is designed to acquaint the student with basic principle of food science and methods of food processing and preservation.

INTRODUCTION TO THE SCIENCE OF NUTRITION

- Definition.
- Food pattern and its relation to health.
- Factors influencing food habits.
- Superstitions, culture, religion, income, composition of family, age, occupation, special group etc.
- Food selection, storage and preservation.
- Prevention of food adulteration.

CLASSIFICATION OF NUTRIENTS

- Macronutrients and micronutrients.

- Types, sources, requirements and deficiency of proteins.
- Sources, requirements and deficiency of carbohydrates.
- Types, sources, requirements and deficiency of fats.
- Sources, requirement and storage of drinking water.
- Types, sources, requirements and deficiency of minerals.
- Types, sources, requirements and deficiency of vitamins.

PLANNING OF DIETS

- Need for planning of diets.
- Concepts of balanced diet.
- Food groups and balanced diet.
- Influence of age, sex, occupation & physiological state.
- Recommended dietary intake.
- Steps in planning balanced diet.
- Concepts of balanced diet for dialysis patients.
- Recommended dietary intake for dialysis patients.
- Planning diet for dialysis patients.
- Steps in planning balanced diet for dialysis patients.

Nutritional problems—i) LBW

ii) PEM

iii) Xerophthamia

iv) Nutritional anaemia

v) IDD

vi) Endemic fluorosis

Nutritional factors in selected diseases

Nutritional assessment

Nutritional surveillance & growth monitoring

Food hygiene- inspection & legal provisions:

- Define the concepts of food hygiene
- Explain the factors affecting preservation use age
- Describe various means of personal hygiene
- Describe food borne diseases
- Describe food poisoning, type and symptoms
- Describe the various means of food preservation and protection

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Define the concepts of food hygiene	<ul style="list-style-type: none"> • Define food hygiene and other related food items • Brief history of food hygiene • Basic concept of food hygiene
Explain the factors affecting preservation usage	<ul style="list-style-type: none"> • Describe the factors influence the effective use of preservation

	<ul style="list-style-type: none"> • Discuss food colouring, additives and food package labels
Describe various means of personal hygiene	<ul style="list-style-type: none"> • Discuss and explain food poisoning • Mention types of food poisoning • Outline symptoms of food poisoning • Preservation of food poisoning
Describe food borne diseases	<ul style="list-style-type: none"> • Discuss various types of personal hygiene e.g hand-washing, bathing, avoidance of ring and jewellery, finger nails, hair, nose and mouth sneezing and coughing, clothing, cut boil sores e.t.c • Healthy status of food handlers
Describe food poisoning type and symptoms	<ul style="list-style-type: none"> • Discuss the various types of food poisoning
Describe the various means of food preservation and protection	<ul style="list-style-type: none"> • Discuss the various types of food preservation, refrigeration, drying canning, osmotic preservation e.t.c

Food toxicants, food addition, food fortification, food adulteration

Food standards

National Nutrition Policy & Programmes

Applied aspects of nutrition (dietetics)

Laws and acts in relation to prevention of food adulteration and various licensing procedure related to them

COURSE TITLE: REFERRAL SYSTEM

CODE: PUB 322

UNIT: 2

GOAL: The course is designed to provide the student with the knowledge of referral system.

GENERAL OBJECTIVES:

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

- Know the concept of referral system.
- Know the difference between outreach and referral system.

GENERAL OBJECTIVE	PERFORMANCE OBJECTIVES
Understand the concept of referral system	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define referral system • Explain the objectives of referral system
Know the difference between outreach and referral system	<ul style="list-style-type: none"> • Differentiate between outreach and referral system • Explain the objectives of referral system • Identify the referral form • Explain the concept feedback • Identify client to be refer • Enumerate advantage of 2-ways referral system • Discuss the facilitator and constraint of 2-ways referral system

COURSE TITLE: BIostatistics

CODE: MAT 107

UNIT: 3

GOAL: This course is designed equip the students with knowledge and skill of statistics in relation to health.

GENERAL OBJECTIVES:

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

- Understand the nature scope and uses of health statistics
- Know how to calculate rates in health statistics
- Understand sampling techniques, methods of data sampling, control tendency measure of dispersion and population dynamics

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the nature scope and uses of health statistics	On completion of this course the student should be able to: <ul style="list-style-type: none"> • Define health statistics • Define vital statistics • List various sources of health statistics • Explain the importance of vital statistics in health
Know how to calculate rates in health statistics	<ul style="list-style-type: none"> • Calculate the following rates: Crude birth and death rates

	<p>Infant morbidity and mortality rates</p> <p>Life expectancy rate</p> <ul style="list-style-type: none"> Describe the common in Measure of rate and attacks rates
Understand sampling techniques, methods of date sampling, control tendency, measure of dispersion and population dynamics	<ul style="list-style-type: none"> Describe sampling Techniques Describe method of date sampling Describe control tendency Describe measure of dispersion Describe population dynamics

COURSE TITLE: INTRODUCTION TO MICROBIOLOGY

COURSECODE: MCB 221

UNIT: 3

GOAL: This course is designed to provide the student with the knowledge of microorganism as causes of disease.

GENERAL OBJECTIVES:

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

- Understand the pattern of Host-parasite Relations in microbial and parasitic infections
- Know various pathogenic organisms
- Know the various bacterial, fungal, viral and protozoan infections of men particularly in Nigeria.
- Know methods of prevention, control and therapy of various bacterial, fungal, viral and protozoan infections.

Understand the pattern of Host-parasite Relations in microbial and parasitic infections	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> Explain the concept of infection, pathogenicity and virulence with respect to disease development in man Explain virulence factors in pathogenic bacteria and fungi of man. Explain virulence factors in pathogenic viruses of man Describe the mode of entry and general symptoms of some parasitic infections of man
Know various pathogenic organisms.	<ul style="list-style-type: none"> List the common pathogenic bacteria along with the diseases they cause in man List the common pathogenic fungi along with the diseases they cause in man

	<ul style="list-style-type: none"> List the common pathogenic viruses along with the diseases they cause in man Explain “Zoonosis” and relate it above. Identify the common pathogenic microorganism listed in above. Observe/ describe caused by the pathogens listed above, where possible.
Know various bacterial, fungal, viral and protozoan infections of man particularly in Nigeria.	<ul style="list-style-type: none"> Describe the causative agents, symptoms, sources, transmission, modes of infection, incubation and laboratory diagnosis of common Bacterial Infections of man Gastro-intestinal tract (GIT) infections Urinary tract infections (UTI) and STD's Skin infections (including wounds). Other infections. Describe the causative agents, symptoms sources, transmission, modes of infection, incubation and laboratory diagnosis of common Fungal infections in man Mycoses Dermatophytosis Others Describe the causative agents, symptoms, sources, transmission, modes of infection, incubation and laboratory diagnosis of common Viral Infections of man. Measles Poliomyelitis Others Describe the causative agent, symptoms, sources, transmission, modes of infection, incubation and laboratory diagnosis of common Protozoan Infections of man. Dysentery (amoebiasis) Diarrhoea (due to flagellates) e.g. giardiasis (c) Other e.g. nematode infections
Know methods of prevention, control and therapy of various bacterial fungal, viral and protozoan infections.	<ul style="list-style-type: none"> Explain the general principles of diseases/infection prevention Explain the general principles of disease control Explain the general principles of chemotherapy

	<ul style="list-style-type: none"> • Explain the general principles of antibiotic therapy • List the common antibiotics their applications and modes of action. Give examples of other therapeutic agents, their applications and modes of action. • Explain susceptibility to antibiotics and the principles of susceptibility testing • Explain the factors affecting susceptibility to antibiotics and susceptibility testing in the laboratory. • Explain antibiotic resistance and factors responsible for it. • Obtain and examine infective samples of pathogens e.g. sputum faeces, urine, skin swabs • Explain the term Nosocomial infections • Explain the prevention and control of Nosocomial infections • Carry out antibiotic susceptibility tests in the laboratory
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PUBLIC HEALTH TECHNOLOGY

SYLLABUS FOR HIGHER NATIONAL DIPLOMA IN PUBLIC HEALTH TECHNOLOGY

This is a four-year course with a year internship programme

GOAL: The candidate during and after the training should be able to implement the knowledge, skills & advances of public health technology for prevention, control, elimination of diseases of public health importance.

OBJECTIVES:

A) KNOWLEDGE:

- a) The candidate should have the knowledge regarding epidemiology, prevention, control & management of diseases of public health importance.
- b) Knowledge of all relevant public health laws and institutions of public health importance.
- c) The candidate should be able to discharge his/ her duties effectively in an administrative capacity in a health organization such as Municipal Corporation.

B) SKILLS:

- a) Should acquire administrative skills essential for smooth functioning of health establishments
- b) Should be able to conduct epidemiological investigation of various diseases during epidemic.
- c) Should know the criteria for sanitation of various places like slaughter house, eateries, sewage treatment plants, ports & airport, milk dairies and be in position to inspect & recommend corrections.
- d) Should be able to plan, implement & evaluate school health services
- e) Should be able to plan, implement & evaluate programmes related to Occupational Health.

YEAR ONE

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PSY 101	GENERAL PSYCHOLOGY	3
2	BIO 101	GENERAL BIOLOGY	3
3	ANA 102	ANATOMY AND PHYSIOLOGY 1	3
4	CSC 106	INTRODUCTION TO COMPUTER	3
5	ANA 103	ANATOMY AND PHYSIOLOGY (practical)1	2
6	ENG 101	ENGLISH LANGUAGE 1	3
7	MAT 107	BIOSTATISTICS	3
8	MAT 109	GENERAL MATHEMATICS 1	2
9	PHE 101	PHYSICAL AND HEALTH EDUCATION	2
10	CUM 101	INTERPERSONAL COMMUNICATION	3
	CREDIT UNIT TOTAL		27

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	ANA 123	ANATOMY AND PHYSIOLOGY 11	3
2	ANA 124	ANATOMY AND PHYSIOLOGY (practical)11	2

3	ENG 121	ENGLISH LANGUAGE 11	3
5	PHC 127	PHILOSOPHY OF HEALTH CARE	3
6	MAT 128	GENERAL MATHEMATICS 11	2
7	MET 125	MEDICAL TERMINOLOGY	3
8	POM 126	PRINCIPLES OF MANAGEMENT	3
9	RPH 127	REPRODUCTIVE HEALTH	3
	CREDIT UNIT TOTAL		22

YEAR TWO

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PHM 212	INTRODUCTION TO PHARMACOLOGY	3
2	BCM 211	BIOCHEMISTRY	3
3	BCM 201	BIOCHEMISTRY (practical)	2
4	PUB 212	COMMUNITY HEALTH	3
5	PUB 214	INTRODUCTION TO PUBLIC HEALTH	3
6	PUB 213	METHOD OF PATIENT CARE 1	3
7	PUB 215	PUBLIC HEALTH INFORMATION, EDUCATION AND COMMUNICATION	3
8	GEO 212	GENERAL AND REGIONAL GEOGRAPHY	3
	CREDIT UNIT TOTAL		23

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PUB 223	METHOD OF PATIENT CARE 11	3
2	PUB 224	IMMUNITY AND VACCINATION	3
3	PUB 222	MENTAL HEALTH	3
4	PUB 221	PATIENT EXAMINATION 1	2
5	MCB 221	MICROBIOLOGY	3
6	FDN 221	FOODS AND NUTRITION	3
7	PUB 225	INTRODUCTION TO ENVIRONMENTAL HEALTH	2
	CREDIT UNIT TOTAL		19

YEAR THREE

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PUB 312	EPIDEMIOLOGY OF COMMUNICABLE DISEASES	3

2	PUB 313	OCCUPATIONAL HEALTH	3
3	PUB 314	GERIATRICS	2
4	PUB 315	DEMOGRAPHY AND POPULATION CONTROL	2
5	PUB 316	ENTOMOLOGY	2
6	PUB 311	PATIENT EXAMINATION 11	2
7	PUB 317	HEALTH CARE DELIVERY SYSTEM	2
	CREDIT UNIT TOTAL		16

SECOND SEMESTER

	COURSE CODE	COURSE NAME	CREDIT UNIT
1	PUB 321	HELMINTHOLOGY	2
2	PUB 322	EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES	3
3	PUB 323	PROTOZOOLOGY	2
4	PUB 324	HEALTH MANAGEMENT AND PLANNING	2
5	MED 325	MEDICAL LAW AND ETHICS 1	3
6	PUB 325	CLINICAL PROCEDURES AND INSTRUMENTS (EMERGENCY SERVICES)	3
7	PUB 326	DEMOGRAPHY AND POPULATION CONTROL	2
	CREDIT UNIT TOTAL		17

YEAR FOUR

FIRST SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
2	PUB 412	EPIDEMIOLOGY AND DISEASE CONTROL 1	3
3	GNS 411	RESEARCH METHODOLOGY 1	3
4	PUB 413	PATIENT EXAMINATION 11	2
5	PUB 414	METHOD OF PATIENT CARE 11	3
6	MED 415	MEDICAL LAW & ETHICS 11	3
7	MCH 416	MATERNAL AND CHILD HEALTH	3
	CREDIT UNIT TOTAL		17

SECOND SEMESTER

S/N	COURSE CODE	COURSE NAME	CREDIT UNIT
1	GNS 421	RESEARCH METHODOLOGY 11	3
2	GNS 422	RESEARCH PROJECT	6
3	PUB 422	EPIDEMIOLOGY AND DISEASE CONTROL 11	3
	CREDIT UNIT TOTAL		12

COURSE TITLE: INTRODUCTION TO PUBLIC HEALTH

COURSE CODE: PUB 214

CREDIT UNIT: 3

GOAL: This course is designed to equip the student with the knowledge and skills to provide a public health service.

GENERAL OBJECTIVE:

On completion at this course the student should be able to:

- Analytically discuss the basic scientific concepts, methodological perspectives and factors that govern public health research.
- Discuss the evaluation of national and global trends affecting health, including communicable and non-communicable diseases as well as the health impact of different environmental and lifestyle factors.
- Apply basic public health concepts to the theoretical management of public health problems including disease prevention, health promotion, health economics and policy, as well as critically compare opposing viewpoints in these fields.

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Analytically discuss the basic scientific concepts, methodological perspectives and factors that govern public health research.	On completion of this course the student should be able to: <ul style="list-style-type: none">• Foundations of public health science• Concepts, principles and methods of public health science and practice• Analytical approaches and major determinants of health
Discuss the evaluation of national and global trends affecting health, including communicable and non-communicable diseases as well as the health impact of different environmental and lifestyle factors.	<ul style="list-style-type: none">• Basic epidemiology, including principles of epidemiologic evaluation of public health interventions• Environmental and lifestyle factors affecting health and public health• Data sources on populations and mortality• The burden of disease and other measures of population health

	<ul style="list-style-type: none"> • Health care systems and population health • Social and behavioral determinants of health • Environmental and lifestyle factors including sustainable development and climate change
Apply basic public health concepts to the theoretical management of public health problems including disease prevention, health promotion, health economics and policy, as well as critically compare opposing viewpoints in these fields.	<ul style="list-style-type: none"> • Principles and methods of disease prevention and health promotion in relation to non-communicable and communicable diseases • Philosophy of science and ethics in public health research • Health economics, health management and policy including principles of economic evaluation of public health interventions

EPIDEMIOLOGY AND DISEASE CONTROL 1

INTRODUCTION

Prevention of diseases in the community health situation- past & present

Place & role of preventive medicine in development of social medicine, community health, community medicine.

Applied aspects of Preventive Medicine – Definition of health and wellness

Changing concepts

Concepts of wellbeing

Spectrum of Health

Determinants of Health

Rights & responsibilities

Indicators of health--i) Mortality

ii) Morbidity

iii) Disability

iv) Others

Health care system

Characteristics

Levels

Primary Health Care

Disease—i) Concept

ii) Natural history of diseases

iii) Epidemiological triad

iv) Risk factors

Concepts of control

Concepts of prevention—i) Modes of interventions

ii) Levels of preventive health services (urban & rural)

Health Management

h) Epidemiology: Definition & aims

Epidemiological approach

Basic measurement in Epidemiology

Types of Epidemiological studies—i) Observational: a) Descriptive

b) Analytic

ii) Experimental

Association & causation

Uses of Epidemiology

Infectious disease Epidemiology

Investigation of an epidemic of Leptospirosis, Malaria, Dengue in Urban set up & in post disaster situations

Health advice to travelers

Disinfection

Control of hospital acquired infections

Screening for diseases

BIOSTATISTICS

INTRODUCTION

Data—i) Sources & uses of data.

ii) Types of data

iii) Collection & Presentation

Centering constants—i) Measures of variation

ii) Normal, Binomial & Poisson distribution

iii) Concept of probability

Sampling methods

Test of significance

Correlation & regression

Clinical Trial

Statistical fallacies

Non-parametric tests

Statistical exercises

Operational research.

Vital statistics—i) Sources of vital statistics

ii) Registration system

iii) Definition & uses

iv). Morbidity & mortality rates

v) Standardization of death rates

vi) Life –table

vii) Fertility rates

Use of computers & their application in Public Health.

ENVIRONMENTAL HEALTH

Planning and management for provision of safe water
WATER

Water in relation of health & diseases—i) Sources & uses

ii) Pollution

ii) Purification-- a) On large scale

i) Storage

ii) Filtration

iii) Disinfection

b) On small scale

i) Household level

ii) Disinfection of well

Quality--a) Criteria & standards

Hardness of water

Swimming pool sanitation

Horrock's apparatus

Public health laboratory and its functions in this context

B) Air & health

i) Indices of thermal comfort

ii) Pollution-- a) Sources

b) Pollutants

c) Monitoring

d) Effects

e) Prevention & control

C) Housing

i) Social goal

ii) Standards

iii) Housing & health

iv) Overcrowding

v) Indicators

D) Industrialization & health

E) Radiation & health

i) Sources

ii) Types

iii) Units

iv) Biological effects

v) Protection

F) Air temperature

i) Measurement

ii) Effects of heat on human health

iii) Effects of cold on human health

iv) Global warming

G) Hazardous wastes & health

i) Planning and management of safe disposal of solid waste

ii) planning and management of safe disposal of bio-medical waste

H) Noise & health

i) Sources

ii) Properties

iii) Effects

iv) Control

I) Safe Disposal of Municipal waste

i) Liquid waste

ii) Solid Waste

FOODS AND NUTRITION

INTRODUCTION TO THE SCIENCE OF NUTRITION

- Definition.
- Food pattern and its relation to health.
- Factors influencing food habits.
- Superstitions, culture, religion, income, composition of family, age, occupation, special group etc.
- Food selection, storage and preservation.
- Prevention of food adulteration.

CLASSIFICATION OF NUTRIENTS

- Macronutrients and micronutrients.
- Types, sources, requirements and deficiency of proteins.
- Sources, requirements and deficiency of carbohydrates.
- Types, sources, requirements and deficiency of fats.
- Sources, requirement and storage of drinking water.
- Types, sources, requirements and deficiency of minerals.
- Types, sources, requirements and deficiency of vitamins.

PLANNING OF DIETS

- Need for planning of diets.
- Concepts of balanced diet.
- Food groups and balanced diet.
- Influence of age, sex, occupation & physiological state.
- Recommended dietary intake.
- Steps in planning balanced diet.
- Concepts of balanced diet for dialysis patients.
- Recommended dietary intake for dialysis patients.

- Planning diet for dialysis patients.
- Steps in planning balanced diet for dialysis patients.

Nutritional problems—i) LBW

ii) PEM

iii) Xerophthamia

iv) Nutritional anaemia

v) IDD

vi) Endemic fluorosis

Nutritional factors in selected diseases

Nutritional assessment

Nutritional surveillance & growth monitoring

Food hygiene- inspection & legal provisions:

- Define the concepts of food hygiene
- Explain the factors affecting preservation use age
- Describe various means of personal hygiene
- Describe food borne diseases
- Describe food poisoning, type and symptoms
- Describe the various means of food preservation and protection

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Define the concepts of food hygiene	<ul style="list-style-type: none"> • Define food hygiene and other related food items • Brief history of food hygiene • Basic concept of food hygiene
Explain the factors affecting preservation usage	<ul style="list-style-type: none"> • Describe the factors influence the effective use of preservation • Discuss food colouring, additives and food package labels
Describe various means of personal hygiene	<ul style="list-style-type: none"> • Discuss and explain food poisoning • Mention types of food poisoning • Outline symptoms of food poisoning • Preservation of food poisoning
Describe food borne diseases	<ul style="list-style-type: none"> • Discuss various types of personal hygiene e.g hand-washing, bathing, avoidance of ring and jewellery, finger nails, hair, nose and mouth sneezing and coughing, clothing, cut boil sores e.t.c • Healthy status of food handlers
Describe food poisoning type and symptoms	<ul style="list-style-type: none"> • Discuss the various types of food poisoning

Describe the various means of food preservation and protection	<ul style="list-style-type: none">• Discuss the various types of food preservation, refrigeration, drying, canning, osmotic preservation e.t.c
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Food toxicants, food addition, food fortification, food adulteration

Food standards

National Nutrition Policy & Programmes

Applied aspects of nutrition (dietetics)

Laws and acts in relation to prevention of food adulteration and various licensing procedure related to them

MICROBIOLOGY

General characteristics & morphology

Laboratory techniques used in the study of microbial agents of public health importance.

Collection & forwarding of different samples for bacteriological & serological analysis

Serological reactions

Immunity.

PROTOZOOLOGY

General characteristics

Classification & Morphology

Disease causation

Laboratory techniques used in the study & control of protozoal infestations of public health importance.

ENTOMOLOGY

General characteristics

Classification & Morphology

Bionomics

Disease transmission & control of insects of public health importance.

- Understand the various insect of public health importance
- Understand the life history of common disease vector of public health importance
- Understand the vertebrate and invertebrate vectors
- Understand the methods of vector prevention and control at different level.

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
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Understand the various insect of public health importance	<p>On completion of this course the student should be able to:</p> <ul style="list-style-type: none"> • Vectors • Mosquito, black flies, and sand flies. • Tsetse flies • Bed bug, flies, flees, ticks, and metes • Cockroaches • Nose flies • Cyclops
Understand the life history of common disease vector of public health importance	<p>Describe the common disease vectors under the following headings</p> <ul style="list-style-type: none"> • Identifications • Habits • Life history and development • Public health importance • Preventive and control measure
Understand the vertebrate and invertebrate vectors	<ul style="list-style-type: none"> • Describe and differentiate the vertebrate and invertebrate vectors • Discuss the disease transmitted by arthropods and rodents • Discuss the methods of transmission of infection by arthropods of public health importance • Discuss the methods of transmission of infection by rodent of public health importance
Understand the methods of vector prevention and control at different level.	<ul style="list-style-type: none"> • List and explain the general methods of preventing disease vectors of public importance at different levels • Describe the criteria for selection of appropriate control measures at different level • Describe the advantages and disadvantages of integrate control • Describe insect ideas and their uses in vector control • Adopt appropriate safety measure in the application of pesticides to non-target species and environment

HELMINTHOLOGY

General characteristics

Classification & Morphology

Life cycle of helminthes

Natural history of diseases

Prevention & control of helminthes of public health importance

EPIDEMIOLOGY OF COMMUNICABLE DISEASES

Exanthematous fevers

Air borne infections

Contact infections

Water-borne & food borne disease

Vector-borne diseases

Zoonotic diseases

Surface infections

Emerging & re-emerging infectious diseases

Hospital acquired infections

National Health programmes for control/ elimination/ eradication of communicable diseases.

EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES

Cardiovascular diseases

Cancer

Diabetes mellitus

Disasters

Blindness

Accidents

Obesity.

MENTAL HEALTH

Health & diseases

Concept of-- a) Normality

b) Mental health

Magnitude of the problem

Prevention of mental diseases

Alcohol related & drug related problems

Mental health services in Nigeria

GERIATRICS

Concept of Aging

Demographic scenario

Principles of underlying preventive geriatrics

Preventive strategies for improving quality of life.

- Understand the introduction to care of the aged
- Understand the problems of the aged
- Understand the treatment and service to meet the need of the elderly
- Understand the management of the old age

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand the introduction to the care of the aged	<ul style="list-style-type: none">• Define the term geriatrics• Know the categories of geriatrics• State the characteristics of the aged
Understand the problems of the aged	<ul style="list-style-type: none">• Social problems of the aged• Medical problems of the aged
Understand the treatment and services to meet the need of the elderly	<ul style="list-style-type: none">• Know the provision of the services to meet the need of the elderly• Know the provision of treatment for the elderly
Understand the management of old age	<ul style="list-style-type: none">• Know the management of old age• Know the resource and facilities available to help the aged

MATERNAL AND CHILD HEALTH

Introduction--Mother & Child as one unit

Care of mother during—i) Antenatal period

ii) Intra-natal period

iii) Postnatal period

Care of children—i) Neonatal care

ii) Care of infant --a) Feeding of infants

b) Immunization

Care of pre-school child

Growth & development

School health

Adolescent health

Indicators of maternal and child health services

Maternal and child health Programmes and services

Postpartum Programmes

Family welfare programmes

Child labour.

PHILOSOPHY OF HEALTHCARE

Introduction: i. definition

ii. Ethical issues regarding Health Care Practices

iii. The role of Law in Public Health

iv. Luck, Risk and Prevention

v. Quality Assurance

vi. Global concerns and Local arguments

vii. Health in developing countries and our global responsibilities

viii. Health in Nigeria and our local responsibilities⁸⁷

ix. Nigeria Public Health Policy

x. Equipoise in Public Health Research

DEMOGRAPHY & POPULATION CONTROL

Introduction—i) Definition

ii) Demographic cycle

iii) Population Pyramid

Fertility – i) Factors affecting fertility

ii) Indicators of fertility

Population explosion as a public health problem

Approaches for population control.

Family planning:

- Understand family planning
- Understand hormonal
- Know the barrier methods of family planning
- Know clinical barrier methods of contraception

GENERAL OBJECTIVES	PERFORMANCE OBJECTIVES
Understand family planning	<ul style="list-style-type: none">• Define family planning• Benefits of family planning• Explain methods of family planning• Know advantages and disadvantages of family planning
Understand hormonal	<ul style="list-style-type: none">• Define hormonal• State types of hormonal• Know advantages and disadvantages of hormonal• Know advantages and disadvantages of family planning
Know the barrier methods of family planning	<ul style="list-style-type: none">• Explain barrier methods of family planning• Know the indication for barrier methods• Types of barrier methods• Instructs the users of barrier methods
Chemical barrier methods of contraception	<ul style="list-style-type: none">• Define chemical barrier methods• Types of chemical barrier method

Terminal methods

Delivery system

National family welfare programme

OCCUPATIONAL HEALTH

Definition

Ergonomics

Occupational diseases & their prevention

Occupation related legislation

Sickness absenteeism

Social security

Organization of services.

HEALTH CARE DELIVERY SYSTEM

Patterns of health care delivery

History of development of health care delivery system in Nigeria

Reports of different committees

Tiers of health care delivery system

Urban health infrastructure.

HEALTH MANAGEMENT & HEALTH PLANNING

Definition

Planning cycle

Management methods & techniques

Personnel, financial & material management.

Principles of planning of health services at district/ PHC level.

Active planning for epidemics, floods refugees

Hospital Management.

CLINICAL POSTING/IT/SIWES

- ❖ PRIMARY HEALTH CARE SERVICES
- ❖ ORTHOPEDIC POSTING
- ❖ COMMUNITY HEALTH POSTING
- ❖ FIELD WORK ON EPIDEMIOLOGICAL RESEARCH
- ❖ MENTAL HEALTH POSTING
- ❖ MATERNAL AND CHILD HEALTH POSTING
- ❖ SCHOOL HEALTH SERVICES
- ❖ BASIC LIFE SUPPORT POSTING (RED CROSS ACTIVITIES AND ACCIDENT AND EMERGENCY UNIT)
- ❖ REPRODUCTIVE HEALTH POSTING
- ❖ HOSPITAL RECORDS DEPARTMENT
- ❖ CLINICAL PROCEDURES AND INSTRUMENT POSTING

CAREER OPPORTUNITIES

Job opportunities for Public Health Professionals are abundant and competitive.

Graduates can find job placement in both private and public sector, including the options of self-employment. Depending on the level of exposure and education in the field, the following are job available for health professionals; Epidemiologist, Health educator, Disease control specialist, Dental hygienist/Technologist, Public programme coordinators, Environmental health career, Public health physician, Researcher, Lecturer, Public health consultant, Director of mental health, Disease intervention specialist, Outreach

coordinator, HIV/AIDS prevention coordinator, Patients care coordinator, Health planner, Public health adviser and many others.

International job opportunities are available with the World Health Organization (WHO), United Nations Children Education Fund (UNICEF), World Bank, United Nations Organization (UNO), United Nations High Commission on Refugees, etc. Many other job opportunities are available with Non-Governmental Organizations or charity set up with foundations in Nigeria and overseas. Public Health Professional with a special passion for certain concerns can found their own Non-profit or charity foundation to advance a course.

DEPARTMENTS

The following departments exist in the Body:

- ❖ Education and Training
- ❖ Examination and Certification
- ❖ Membership
- ❖ Organizing and Recognition
- ❖ Affiliation and Cooperation
- ❖ Research and Publication
- ❖ Inspection and Monitoring

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МАРФС