NATIONAL BOARD FOR TECHNICAL EDUCATION

HIGHER NATIONAL DIPLOMA

IN

HEALTH INFORMATION MANAGEMENT

CURRICULUM AND COURSE SPECIFICATIONS

NOVEMBER, 2022

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

FOREWORD

The Higher National Diploma in Health Information Management curriculum is designed to be used by training institutions to produce manpower for industries nationwide.

The acute shortage of professionally-trained manpower in these industries in Nigeria as well as the need to produce professional practitioners with good ethics and career progression, through the acquisition of desirable knowledge and skills, necessitated the production of this national curriculum.

It is my belief that this curriculum and course specifications which is the minimum required to produce technicians with sound knowledge and skills in Health Information Management, if properly implemented with the required resources (qualified teaching staff in adequate number and mix, adequate consumables, training materials, teaching aids), and qualified candidates are admitted into the programme will lead to the production of competent and skilled technicians required in the sector.

I wish to express my deep appreciation to those that made the review of this curriculum possible. The invaluable contributions of all the members of the committee and resource persons during the national review workshop are appreciated.

I hope that the curriculum would be properly implemented, so as to produce the required Work Force of our dream.

Prof. Idris M. Bugaje,
EXECUTIVE SECRETARY,
NBTE Kaduna.

TABLE OF CONTENTS

CONTENTS

GENERAL INFORMATION.

1.0 PROGRAMME NOMENCLATURE

Higher National Diploma in Health Information Management

2.0 GOAL

This programme is designed to produce Technologists equipped with the knowledge and skill to plan, collate organize, disseminate monitor and manage vital information required at the local, state and national levels in order to ensure effective and comprehensive national health care delivery

3.0 OBJECTIVES OF THE PROGRAMME

A diplomate of this programme should be able to:

i. Plan and organize health information services in health care delivery system.

ii. Organize and control health records, in health and medical establishments.

iii. Supervise the collecting, storing, retrieved and preservation of health information

iv. Collate, analyse and present health statistical data.

v. Participate in planning quality control, evaluation, researches in health care delivery system and other relevant committees in defining standards for health information

vi. Designe, standardize and control health records forms

4.0 LEVEL OF PROGRAMME

Higher National Diploma

5.0 DURATION

The duration of the programme shall be two academic sessions of four semesters (of not less than 15 weeks of lecture per semester).

6.0 ENTRY REQUIREMENT

Applicants with the following qualifications may be considered for admission into the Higher National Diploma programme.

I) In addition to the specific entry requirements for the ND programme for Health Information Management, the candidate for the HND programme must meet the following entry requirements for the HND programme:

A. National Diploma Certificate in Health Information Management with a minimum of a lower credit.

B. Evidence of completion of one year relevant work experience in an accredited health institution approved by the Board

C. Candidates with a Pass (GPA 2.00 - 2.49) at the ND level with two (2) or more years post-ND cognate work experience may be considered for admission into the HND program

7.0 PROGRAMME STRUCTURE

The Higher National Diploma is a two year terminal academic programme

8.0 CURRICULUM

The curriculum of all HND programmes consists of five main components. These are:

i. Professional/Specialized Courses

ii. Basic/Foundation Courses

iii. General Studies/Education

9.0 STAFFING REQUIREMENTS

9.1 Core Teaching Staff

A minimum of six (6) lecturers are required for one stream (40 students). Core teaching staff should possess at least a B.Sc. in Health Information Management.

9.2 Technical Staff

Technical staff should possess ND/HND in Health Information Management

9.3 Headship of the Department

The Head of Department shall;

- Possess not less than a Master's degree in Health Information Management
- Have at least 10 years industrial/teaching experience
- Be a professional Member of HRORBN
- Be of the rank of Senior Lecturer or above
- Must possess Post Graduate Diploma in Education or HIM Tutors Certificate
- All the above mentioned staff must possess current HRORBN professional practicing license.

9.4 Carrier/Academic Prospects

The diplomates would work as Health Information Management Technologists. They can also proceed to relevant postgraduate studies.

10.0 CERTIFICATION

A diplomate of this programme will be awarded HND in Health Information Management.

11.0 CONDITIONS FOR THE AWARD OF HND CERTIFICATE

Institutions offering accredited programme will award the Higher National Diploma to candidates who successfully completed the programme after passing the prescribed course work, examinations and HND research project.

12.0 INDEXING OF STUDENTS

All newly admitted students must be indexed by the HRORBN within the first semester of the programme.

13.0 **LICENSING EXAMINATION**

Professional Licensing Examination to Practice at the end the programme and having satisfy all academic requirements, diplomate will write and pass the Board (HRORBN) practicing licensing examinations Part II.

14.0 GRADING SYSTEM

15.0 Higher National Diploma shall be awarded in four classes:

Distinction	-	CGPA of 3.50 and above
Upper Credit	-	CGPA of 3.0 - 3.49
Lower Credit	-	CGPA of 2.50 - 2.99
Pass	-	CGPA of 2.00 - 2.49

14.1 Grading of Courses:

Courses shall be graded as follows:

MARKED RANGE	LETTER GRADE GRADE	WEIGHTING
75% and above	A	4.00
70% – 74%	AB	3.50
65% – 69%	B	3.25
60% – 64%	BC	3.00
55% – 59%	C	2.75
50% – 54%	CD	2.50
45% – 49%	D	2.25
40% – 44%	E	2.00
Below 40%	F	0.0

\

GUIDANCE NOTES FOR TEACHERS

11.1 The new curriculum is drawn in unit courses. This is in keeping with the provisions of the National Policy on Education which stress the need to introduce the semester credit units which will enable a student who so wishes to transfer the units already completed in an institution of similar standard from which he/she is transferring.

11.2 In designing the units, the principle of the modular system by product has been adopted, and each of the professional modules, when completed provides the student with technician operative skills, which can be used for employment purposes self - and otherwise.

11.3 As the success of the credit unit system depends on the articulation of programmes between the institutions and industry, the curriculum content has been written in behavioral objectives, so that it is clear to all the expected performance of the student who successfully completed some of the courses or the diplomates of the programme. This is slight departure in the presentation of the performance-based curriculum which requires the conditions under which the performance are expected to be carried out and the criteria for the acceptable levels of performance. It is a deliberate attempt to further involve the staff of the department teaching the programme to write their own curriculum stating the conditions existing in their institution under which performance can take place and to follow that with the criteria for determining an acceptance level of performance.

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

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

12.0 FINAL YEAR PROJECT

Final year students in this programme are expected to carry out a project work. This could be on individual basis or group work; but reporting must be undertaken individually. The project should, as much as possible incorporate basic element of design, drawing and

complete fabrication of a marketable item or something that can be put to use. Project reports should be well presented and should be properly supervised.

The departments should make their own arrangement of schedules for project workCURRICULUM TABLE

YEAR 1 SEMESTER I

COURSE CODE	COURSE TITLE	L	T	P	CU	CH	Pre-Requisite
HIM 311	Health Information Management III	2	0	1	3	3	
HIM 312	Fundamentals of Medicine	2	0	0	2	2	
HIS 311	Introduction to Inferential Statistics	2	0	0	2	2	
HIS 312	Health Economics	2	0	0	2	2	
HIM 313	Health Data Management	2	0	1	3	3	
HIS 314	Legal and Ethical Aspects of HIM II	2	0	2	2	2	
HIS 315	Computer Packages II	2	0	1	3	3	
HIS 316	Health Planning & Management II	2	0	2	2	3	
HIS 317	Drugs and Body Systems	2	0	0	2	2	
HIS 318	Health Care Financing	2	0	0	2	2	
HIS 319	Operations Research	2	0	0	2	2	
GNS 302	Communication in English III	2	0	0	2	2	
TOTAL		**19**	**0**	**7**	**26**	**28**	
						420	

YEAR 1 SEMESTER II

COURSE CODE	COURSE TITLE	L	T	P	CU	CH	Pre-Requisite
HIS 321	Sampling Techniques	2	0	1	3	3	
HIS 322	Health Informatics II	2	0	1	3	3	
HIS 323	Management of Human Resources for Health	2	0	0	2	2	
HIS 324	Monitoring and Evaluation III	2	0	1	3	3	
HIM 312	Disease Classification and Clinical Coding III	1	0	1	2	2	
HIS 325	Research Methodology II	2	0	1	3	3	
HIS 326	Design and Analysis of Experiments	1	0	1	2	2	
STA 325	Biometrics	2	0	1	3	3	
STA 425	Time Series	2	0	2	2	2	
GNS 322	Population, Resources and Environment	2	0	0	2	2	
GNS 411	Introduction to Psychology	3	0	0	3	3	
TOTAL		**20**	**0**	**7**	**27**	**27**	
						405	

YEAR II SEMESTER I

URSE CODE	COURSE TITLE	L	T	P	CU	CH	Pre-Requisite
HIM 411	Proposal Writing	1	0	1	2	2	
HIM 423	Seminar	1	0	0	1	1	
HIS 412	Database Management Systems	2	0	1	3	3	
HIS 413	Occupational Health and Safety	2	0	0	2	2	
HIS 414	Human Anatomy and Physiology IV	2	0	1	3	3	
EED 413	Entrepreneurship Education	2	0	2	4	4	
STA 422	Demography II	2	0	0	2	2	
TOTAL		**12**	**0**	**6**	**18**	**18**	
						270	

YEAR II SEMESTER II

COURSE CODE	COURSE TITLE	L	T	P	CU	CH	Pre-Requisite
HIM 421	Electronic Health Records II	1	0	2	3	3	
HIM 422	Disease Classification and Clinical Coding IV	1	0	2	3	3	
HIM 423	Hospital Statistics II	2	0	2	2	2	
HIM 424	Data Sharing	2	0	0	2	2	
HIM 425	Health Information Management IV	2	0	1	3	3	
HIM 426	Independent Research Project	0	0	6	6	6	
GNS 402	Literary Appreciation and Oral Composition	2	0	2	2	2	
TOTAL		**9**	**0**	**14**	**23**	**21**	
						345	

YEAR 1 SEMESTER I

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: HEALTH INFORMATION MANAGEMENT III			
CODE: HIM 311			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3(45hrs/semester)**
UNITS: 3			
GOAL: This course is designed to enable the students acquire advanced knowledge in Health Information Management			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the public relation roles of health information personnel 2.0 Understand the principles and techniques of tool design and management 3.0 Know the policy and legal aspects of hospital administration 4.0 Understand problem oriented health records (POHR) 5.0 Understand the concept of health records linkage 6.0 Understand the management of patient health records in short and long term 7.0 Understand the principles of setting up health records department 8.0 Understand Medical records Subcommittee 9.0 Understand Medical care evaluation 10.0 Understand changing from one filing system			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	Health Information Management III	**Course Code:**	HIM 311	**Contact Hours:**	45	
COURSE SPECIFICATION:	TTheoretical Content 2		Practical Content:	1		
General Objective:	1.0: Understand the public relation roles of health information personnel					
Week	**Specific Learning Objectives**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
1	1.1 Define public relations 1.2 Enumerate the objectives of public relations in health institutions 1.3 Explain the need for cooperative relationships: - Externally - patients and relations, the public - Internally – staff member, intra and inter-departments 1.4 Explain the activities of public relations office regarding: - Patient - Public - Law enforcement agencies (NDLEA, Police, Civil defense etc)	Explain 1.1 – 1.8	Textbooks Charts and forms, Reading materials Classroom resources	1.9 Demonstrate the relationship between of health records officer and patients, public, law enforcement agencies and other members of the healthcare team	Supervise student exercises in 1.9 and assess student work	Explain the need for cooperative relationships: - Externally- patients and relations, the public - Internally – staff member, intra and inter-departments

	1.5	Describe the roles of health information practitioners in creating friendly climate for patients and relations					
	1.6	Explain health information practitioner as front desk officer that must be cheerful in:					
	-	directing patients and visitors					
	-	attending to phone calls					
	-	handing over and taking over					
	1.7	Explain the need for cooperative and pleasant relationship between health information department and other departments of the hospital					
	1.8	Describe the health information department as the hub around which other departments hinges					

General Objective: 2.0: Understand the principles and techniques of tool design and management						
1	2.1 Describe the types of tool design: - paper form - computer data entry screen 2.2 Describe the five (5) major components of paper forms as: - heading - introduction - instructions - body 2.3 Explain the consideration for: - Margins - Spacing - Rules - type styles - recording methods - close 2.4 Outline the following construction consideration in tools: - creating the master - physical building of the form - ink - paper - carbonizing - duplicating method 2.5 Explain the need for health information practitioner to	Explain 2.1 – 2.9	Textbooks Charts and forms, Reading materials Classroom resources	Design recording and reporting tools	Supervise student exercise in 2.12 and assess student work Samples of Forms	Explain the consideration for: - Margins - Spacing - Rules - type styles - recording methods - close

	understand the principles of printing technology 2.6 Explain the need for standardizing tools 2.7 Describe the process of introducing new tools 2.8 Explain the basic rules to be considered in designing a tool 2.9 Describe the two(2) considerations for computer tools design: - screen format - printout - Explain tool control - Define tool inventory - Describe the procedure for tool inventory					
General Objective: 3.0: Know the policy and legal aspects of hospital administration						
1	3. 1Define a hospital 3. 2Explain the following: - classification of hospitals - hospital as an organization - hospital as a system - hospital departmentalization	Explain 3.1 – 3.7	Textbooks Charts and forms, Reading materials Classroo			Explain the following: - classification of hospitals - hospital as an organization - hospital as a system - hospital departmentalization

	- 2communication in the hospital - hospital information handbook 3. 3Explain the role of Management Board of Hospitals 3. 4Explain laws relating to hospital administration 3. 5Explain the Legal trends affecting Hospital Administration 3. 6Explain laws relating to Hospital patient-relationship 3. 7Describe patient's record as a legal document in the following areas: - Property rights and ownership - Custodian of the record - Responsibility of Hospital management - Authorizations, signatories, correction, ensures and validity - Problem of incomplete health		m resources			- 2communication in the hospital - hospital information handbook Explain the role of Management Board of Hospitals

	records - Time – limit for completing records - Removal of records from hospital - Discharge summaries 4.2 List the legal requirements of a health Information system 4.3 Identify the limitations of a health information system					
General Objective: 4.0: Understand problem oriented health records (POHR)						
1	4.1 Define health information format 4.2 Describe the following health information formats: i. source oriented ii. problem oriented iii. integrated 4.3 Describe the setbacks of Source oriented format 4.4 Describe the historical background of the POMR 4.5 Explain the objectives of	Explain 4.1 – 4.7	Textbooks Charts and forms, Reading materials Classroom resources			Explain the setbacks of Source oriented format

	POMR 4.6 Describe the outline of progress note in POMR as SOAP - - S subjective - O objective - A assessment/analysis - - P plan 4.7 Explain POMR 'Master Problem List' Enumerate the merits of POMR					
General Objective: 5.0: Understand the concept of health records linkage						
1	6.1 Define record linkage 6.2 Outline the historical overview of record linkage 6.3 Explain the concept of record linkage 6.4 State the fundamental requirements for successful linkage 6.5 Explain the process of record linkage by matching: - manual - computer 6.6 Outline factors that may militate against effective record linkage in	Explain 5.1 – 5.6	Textbooks Charts and forms, Reading materials	6.7		Explain the process of record linkage by matching: - manual - computer Outline factors that may militate against effective record linkage in developing countries

	developing countries					
General Objective: 6.0: Understand the management of patient health records in short and long term care						
1	6.1 Define long term care facility (LTC) 6.2 Differentiate between long and short term care facilities 6.3 Describe the following practice guidelines for LTC health information and record systems - record system, organization and maintenance - discharge record processing - audit and quality monitoring - filing and retrieval - storage systems - retention - destruction - physical security of manual/paper records - confidentiality and release of information - coding - indexes and registries	Explain 6.1 – 6.6	Textbooks Charts and forms, Reading materials Classroom resources			Define long term care facility (LTC) Differentiate between long and short term care facilities

	- minimum statistical reporting 6.4 Explain LTC legal documentation 6.5 standards 6.6 Explain documentation and content of LTC records					
General Objective: 7.0: Understand the principles of setting up Health Information Management Department						
7	7.1 Explain health information management department 7.2 Setting up Out-Patient record office .3 Setting up In – Patient record office 7.4 Inter – departmental relationship 7.5 Inter – departmental relationship 7.6 Managing health records department.	Explain 7.1 - 7.6	Textbooks Charts	Student explain to 7.1 – 7.6	Teacher to guide student to set out sketch of setting up health records department Diagrams and reading materials	Explain setting up a health record department
General Objective: 8.0 : Understand Medical record Subcommittee						
14	8.1 Explain health record subcommittee 8.2 Discuss committees 8.3 Discuss members of	Explain 8.2 – 8.5	Textbooks Charts			Explain health record subcommittee

	the health records subcommittee 8.4 Explain the role of Health records subcommittee 8.5 Discuss the function of Health records subcommittee.					
General Objective: 9.0: Understand Medical Audit Circle						
21	9.1 Explain Medical Care evaluation 9.2 Explain Pear review 9.3 ExplainUtilization review 9.4 ExplainAudit circle	Explain9.1 – 9.4	Textbooks Charts		Illustrate with examples	Explain Medical Care evaluation Explain Pear review
General Objective: 10.0 Student should know steps involved in changing from one filing system to another						
	10.1 Explain three components of health records services 10.2 Explain creating health records 10.3 Explain storing health records 10.4 Explain retrieval of health records 10.5 Explain conversion of filing systems.	Explain 10.1 – 10.5	Textbook Chart			Explain three components of health records services

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE: FUNDAMENTALS OF MEDICINE			
CODE: HIM 312			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 2			
GOAL: This course is designed to introduce the student to a higher level of language of medicine and terminologies used in disease process.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to: 1.0 Know the anatomy, physiology and pathophysiology of human body system 2.0 Know the etiology and process of disease 3.0 Know the fundamental mechanisms of cellular and tissue responses to injury and disease 4.0 Know the subdivisions of pharmacology, pharmacokinetics and pharmacodynamics 5.0 Understand the different drug classifications 6.0 Understand the mechanism by which drugs and biologics act in the body and at their targets 7.0 Understand the interpretation of diagnostic tests			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	Fundamentals of Medicine	**Course Code:**			**Contact Hours:**	45
COURSE SPECIFICATION:	o Theoretical Content: 2		Practical Content: 0			
General Objective	1.0: Know the anatomy, physiology, pathophysiology of human body systems					
Week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
1 1	1.10 Explain anatomy of human body system. 1.11 Explain physiology of human body system. 1.12 Explain Pathophysiology. 1.13 List the 4 components of Pathophysiology: -Etiology -Pathogenesis -Clinical manifestation -Treatment implication 1.5 Explain the 4 components of Pathophysiology in 1.4 above. 1.6 Describe the medical terms of the different anatomical planes, directions, and body regions.	Explain 1.1 – 1.6	Textbooks Charts and forms, Reading materials			Explain anatomy of human body system. Explain the components of Pathophysiology explain the medical terms of the anatomical body regions. Describe the medical terms of the different anatomical planes,

						directions, and body regions.
General Objective		2.0: Know the etiology and process of disease				
4	2.1 Explain etiology of diseases. 2.2 Explain Disease process. 2.3 Describe etiology, treatment, and prognosis of common disease conditions. 2.4 Describe the process of blood circulation within the heart. 2.5 Specify the correct medical terminology for common disorders of the cardiovascular	Explain 2.1 – 2.5	Textbooks Charts and forms, Reading materials			Explain disease process Explain etiology of disease Describe the process of blood circulation within the heart.
General Objective		3.0: Know the fundamental mechanisms of cellular and tissue responses to injury and disease				
5	3.1 Explain cells 3.2 Explain tissues 3.3 Explain organs 3.4 Explain the mechanism of cellular adaptation 3.5 Explain cellular response to injury. 3.6 Explain tissue response to	Explain 3.1 to 3.7	Textbooks Charts and forms, Reading materials			Explain cells, tissues and organs Explain the mechanism of cellular adaptation Explain cellular and tissue responses to

	injury. 3.7 Explain Inflation.					diseases and injuries
General Objective	4.0: Know the subdivisions of pharmacology, pharmacokinetics and pharmacodynamics					
6	4.1 Explain Pharmacology 4.2 Explain Pharmacokinetics 4.3 Explain Pharmacodynamics 4.4 Explain Pharmacognosy 4.5 Explain Pharmacotherapeutics 4.6 Explain toxicology	Explain 4.1 to 4.6	Textbooks Charts and forms, Reading materials			Explain Pharmacology and its divisions Explain toxicology
General Objective	5.0: Understand the different drug classifications					
7	5.1 Explain drug classification. 5.2 Describe the various classes of drugs e.g. -CNS depressants, -Stimulants, -Analgesics etc. 5.3 Explain drugs and body chemistry.	Explain 5.1 and 5.3	Textbooks Charts and forms, Reading materials			Explain drug classification Describe the various classes of drugs Explain drugs and body chemistry.

General Objective	6.0: Understand the mechanism by which drugs and biologics act in the body and at their targets					
8	6.1 Define drugs 6.2 Define Biologics 6.3 Explain drug Reactions 6.4 Explain adverse drug reactions 6.5 Explain mechanism of drug actions in the body. 6.6 Explain the principles of drug actions. 6.7 Explain mechanisms involved in drug interactions. 6.8 Explain factors affecting drug actions. 6.9 Differentiate between drugs and biologics. Give examples of biological drugs. 6.10 Explain how biologics work in the body.	Define 6.1 – 6.10 .	Textbooks Charts and forms, Reading materials			Define drugs and biologics Explain drug reactions Explain mechanism of drug actions in the body. Explain factors affecting drug actions. Explain how biologics work in the body
General Objective	7: Understand the interpretation of diagnostic tests					
9	7.1 Explain diagnostic test.	Explain 7.1 – 7.5	Textbooks Charts and			Explain diagnostic

	7.2 List some diagnostic test e.g. -X-ray -CT-scan -MRI -ECG -EEG -Biopsy -Gastroscopy etc 7.3 Explain diagnostic tests listed in 7.2 above 7.4 Discuss the significance of diagnostic tests. 7.5 Explain the characteristics of a good diagnostic test.		forms, Reading materials			test Students to discuss the significance of diagnostic tests in 7.4 Explain the characteristics of a good diagnostic test

HIS 311: INTRODUCTION TO INFERENTIAL STATISTICS

PROGRAMME:HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA]			
COURSE: HEALTH ECONOMICS			
CODE:HIS 312			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 0**	**Total: 2 (30hrs/semester)**
UNITS:2			
GOAL: This course is designed to enable students to Acquire Knowledge of Application of Economics in Health Information Management.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Know the fundamentals of Health Economics 2.0 Understand Health Care Markets 3.0 Understand Demand- Side of Health Care Markets 4.0 Understand Supply-Side of Health Care Markets 5.0 Know Health Care Market Failure and Interventions 6.0 Understand Economic Evaluation in Health Care 7.0 Know Health Care Fraud and Abuse			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE:HEALTH ECONOMICS		**Course Code: HIS 312**			**Contact Hours:30 Hours**	
COURSE SPECIFICATION: Theoretical Content:2Practical Content:0						
General Objective: 1:0 Know the fundamentals of Health Economics						
week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
1-2	1.1 Define Health and Health Care. 1.2 Explain Basic Economic terms:- -Needs - Wants - Demands -Scarcity - Choice -Scale of preference -Opportunity Cost -Consumers -Producers etc. 1.2 List types of Economic goods -Normal goods -Inferior goods -Superior goods -Substitute goods -Complimentary goods -Merit goods -Public goods. 1.3 Explain goods listed in 1.2 above. 1.4 Describe Demand, Supply and Equilibrium.	Explain 1.1 to 1.7	White Board Marker, Projector Laptop Computer	To explain basic Econnmic terms.	Guide Students to explain basic Econnmic terms.	Explain basic Econnmic terms.

	1.5 Explain types of Elasticity -Price Elasticity -Income Elasticity 1.6 Explain types of Equity - Horizontal Equity - Vertical Equity 1.7 Explain types of Efficiency - Technical Efficiency - Allocative Efficiency - Administrative Efficiency					
General Objective:2:0 Understand Health Care Markets.						
3-4	2.1 Describe Health Care Markets. 2.2 Explain the roles of health care consumers in health care markets. 2.3 Discuss the roles of health providers in health care markets. 2.4 Explain Free Market Optimality. 2.5 Explain the following terms: - Free Market Optimality - Perfect competition - Complete market - Rational maximixers - Equitable distribution of resources. 2.6 Identify limitations of Free Market.	Explain 2.1 to 2.7	White Board Marker, Projector Laptop Computer	Explain the roles of health care consumers in health care market.	Guide Students to explain health care markets.	Explain the roles of health care consumers in health care market.

	2.7 Explain Optimality in health care market.					
General Objective:3.0 Understand Demand-Side of Health Care Markets.						
5-7	3.1 Explain the demand for health care. 3.2 Explain the factors Influencing demands for health care -Patients' Factors: - Patients Health Status - Economic Standing(Income) - Level of out of pocket expenditure - Availability of medical insurance -Physicians-induced demand 3.3 Explain each factor listed in 3.2 above. 3.4 Explain price elasticity of demand for medical/health care. 3.5 Explain income elasticity of demand for medical/health care.	Explain 3.1 to 3.5	White Board Marker, Projector Laptop Computer	To explain factors affecting health care demands of patients' and clients.	Guides Students to explain factors affecting health care demands of patients' and clients.	Explain factors affecting health care demands of patients' and clients.
General Objective:4:0 Understand Supply-Side of Health Care Market.						
8-10	4.1 Explain the supply of health care. 4.2 Discuss the factors influencing supply of health care. - Source of healthcare financing - Level of medical training - Technology in medicine - Government policiese etc. 4.3 Explain the roles of Hospital Services in Health Care Markets.	Explain 4.1 to 4.10.	White Board Marker, Projector Laptop Computer	To explain the supply of Health care market to patients' and Clients'.	Guide Students to explain the supply of Health care market to patients' and Clients'.	Explain the supply of Health care market to patients' and Clients' Explain the roles of hospital

	4.5 Outline the history of hospital services. 4.6 Explain the Classification of Hospitals. 4.6 Explain the factors affecting hospital pricing: - -Ownership - -Improved facilities - -Increased staffing - -Emerging Technology etc. 4.7 Explain Managed Care. 4.8 Outline the history of Managed Care. 4.9 Enumerate various types of Care Plans. - Health Maintenance Organisations (HMOs) - Preferred Provider Organisations (PPOs) - Point-of-Services (POS) Plans etc. 4.10 Explain the merits and demerits of plans in 4.9 above.		White Board Marker, Projector Laptop Computer	To explain the factors affecting hospital pricing of services.	Guide students to explain the factors affecting hospital pricing of services.	services in health care market. Explain the factors affecting hospital pricing of services.
General Objective:5: Know Health Care Market Failures and Interventions.						
11-12	5.1 Explain Health Care Market Failure. 5.2 State causes of Health Care Market	Explain 5.1 to 5.5.	White Board Marker, Projector Laptop Computer	To explain causes of health care market failure and	Guide Students to explain causes of health care market	Explain causes of health care market failure and government

	Failure - Monopoly in Health Care Markets - Externalities - Health Care as public goods - Medical information asymmetry. 5.3 Explain causes of Health Care market failure listed above. 5.4 Dicuss Government Interventions in Health Care Markets. - Financing - Direct provision of health care services - Regulation (Price controls, entry restrictions such as licensing) - Subsidization e.g. NHIS etc. 5.5 Explain causes of government failure in Health Care Markets e.g. inequities			government interventions in the providion of health care services.	failure and government interventions in the providion of health care services.	interventions in the providionof health care services.
General Objective: 6.0 Understand Economic Evaluation in Heath Care.						
13	6.1 Explain Economic Evaluation in Health Care. 6.2Explain the importance of Economic Evaluation in Health Care. 6.3 Discuss types of Economic Evaluation in Health Care.	Explain 6.1 to 6.5.	White Board Marker, Projector Laptop Computer	To explain types of economic evaluation and its advantages in health care.	Guide Students to explain types of economic evaluation and its advantages in health care.	Explain types of economic evaluation and its advantages in health care.

	-Cost-of-illness studies -Cost-Benefits Analysis -Cost-Effectiveness Analysis -Cost-Minimization Analysis -Cost-Utility Analysis etc. 6.4 Explain types listed in 6.3 above. 6.5 Explain the merits and demerits of each type listed above.					
General Objective:7.0 Know Health Care Fraud and Abuse.						
14-15	7.1 Explain Health Care Fraud. 7.2 Explain types of Health Care Fraud -Fraud in billing. -Fraud of incorrect reporting of diagnoses/procedures for payments -Fraud of uncovered services -Fraud in prescription drug pricing -Fraud in marketing of drugs -Fraud in the delivery of prescription drugs -Fraud of unnecessary referral to maximize payments e.t.c. 7.3 Explain each type listed in 7.2 above. 7.4 Discuss Health Care Abuse. 7.5 Explain certain preventive measures against fraud and abuse.	Explain 7.1 to 7.5.	White Board Marker, Projector Laptop Computer	To explain types of Health care fraud, abuse and their prevention.	Guide students to explain types of Health care fraud, abuse and their prevention.	Explain types of Health care fraud, abuse and their prevention.

PROGRAMME: HEALTH DATA MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: HEALTH DATA MANAGEMENT			
CODE: HIM 313			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 3			
GOAL: This course is designed to enable students acquire knowledge in Health Data Management			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the concept of health data management 2.0 Understand Health Data Management Policy 3.0 Understand health data management life cycle 4.0 Understand health data analytics 5.0 Understand health data quality and Integrity 6.0 Understand data security 7.0 Know the concept of big data in healthcare delivery 8.0 Know the challenges and prospects of health data management			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA**)**						
COURSE: HEALTH DATA MANAGEMENT **Course Code: HIS 312** **Contact Hours:30 Hours**						
COURSE SPECIFICATION: Theoretical Content:2Practical Content:0						
General Objective: 1:0 Understand the concept of Health data Management (HDM)						
week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
1.	**1.**1Explain the followings: – Data – Information – Knowledge – Decision 1.2 Explain data structure 1.3 Describe data content 1.4 Explain data context 1.5 Define health data management 1.6 Explain the evolution of HDM 1.7 Explain the purpose of HDM 1.8 Explain components of HDM as: – Input – Processes – Outputs 1.9 Explain steps in HDM process: – define a data architecture – assign responsibilities – define of nomenclature – collect data – prepare data – process data – analyze data – interpret data	Explain 1.1 to 1.9	Textbooks, Charts and Forms, Reading materials.	Explain 1.1 to 1.9		Explain Information Health data, Describe evolution of health data management

	– share data – collaborate					
General Objective 2.0: Understand Health Data Management Policy (DMP)						
2	**2.1** Explain policy 2.2 Explain data management policy 2.3 Explain purpose of DMP 2.4 Explain Data policy manuals 1.5 Develop data management plan 2.6 Explain Data protection law	Explain 2.1 to 2.6	Textbooks Charts Forms Reading materials.	Explain 2.1 to 2.6	Guide students to Develop data management plan	Explain data management policy
General Objective 3.0 Understand health data management lifecycle						
3-4	3.1 Explain health data management lifecycle 3.2 Explain the phases HDM cycle as: – Data Capture/ creation, – Data Maintenance – Data Synthesis – Data Usage – Data Publication – Data Archival – Data Purging 3.3 Apply the data management lifecycle to real life data	Explain 3.1 to 3.3	Textbooks, charts, forms, reading materials, laptop computer and projector	To explain 3.1 to 3.11		Explain the overview of health data management cycle
General Objective 4.0 Understand health data analytics						
5-7	4.1 Explain data analytics 4.2 Describe types of health data analytics as: – descriptive, – diagnostic, – predictive, and – prescriptive. 4.3 Explain steps in health data	Explain 4.1 to 4.4	Textbooks, Charts, Forms, Reading materials, Laptop Computer, Specific Statistics Software, Statistical tables,	To explain 4.1 to 4.4	Guide students to analysis health data.	Explain health data analysis

	analytics – determine the data requirements – data collection – organize data – clean-up data – analyze data *4.4 Explain Data Analytics Techniques* – Regression analysis – Factor analysis – Cohort analysis – Time Series analysis – Simulation analysis – Cluster analysis, etc 4.4 Explain tools for data Analysis as: – Microsoft Excel – Python – R – SAS – STATA – SPSS – Epi Info – Access		Graph paper, Scientific calculators and Projector			
General Objective 5.0 Understand health data quality and Integrity						
	5.1 Explain data quality **5.2** 4 Explain characteristics of data quality as: – Complete – Unique, – Valid,	Explain 5.1 to 5.7	Textbooks, Charts, Forms, Reading materials, Laptop Computer, Specific Statistics	Explain 5.1 to 5.7		Explain health data Integrity

	– Timely, – Consistent **5.3** Explain health data Integrity 5.4 Explain characteristics of data Integrity as: – Data integration – Data quality – Location intelligence – Data enrichment: **5.5** Explain the difference between quality and integrity 5.6 Explain ways to ensure data quality and integrity as follows: – Gather accurate data – Monitoring and cleansing data – Access control – Validate data input – Remove duplicate data – Back up **5.7 Explain data governance**		Software, Statistical tables, Graph paper, Scientific calculators and Projector			
General Objective 6.0: Understand data security						
9-12	6.1 Explain data security 6.2 Explain core elements of data security as: – Confidentiality, – Integrity, and – Availability 6.3 Explain the need for data security 6.4 Explain measure of data security as follows:	Explain 6.1 to 6.5	Textbooks, Charts, Forms, Reading materials, Laptop Computer, Specific Statistics Software, Statistical tables, Graph paper, Scientific calculators	Explain 6.1 to 6.5		Explain health data security

	– data masking, – data erasure, – backup storage – encryption, – tokenization, – authentication – biometric verification, – key management. 6.5 Explain Infrastructure Security as: – Access Controls – Application Security – Behavioral Analytics – Firewalls Virtual – Private Networks – Wireless Security		and Projector			
General Objective 7.0: Know the concept of big data in healthcare delivery						
	7.1 Explain Big Data 7.2 Explain the concept of Big Data 7.3 Explain types of Big Data – Structured data – Unstructured data – Semi-structured data 7.4 Explain characteristics of Big Data – Volume – Variety – Velocity – Value – Veracity **7-5** Explai*n* big data analytics *7.6 Explain big data analysis techniques as:* – A/B testing	To explain 5.1 to 5.6	Textbooks, Charts Forms and Reading materials.	To explain 5.1 to 5.6		Explain Big data Explain characteristics of Big Data

	– Data fusion and data integration Data – Data mining – Machine learning – Natural language processing (NLP) – Statistics					
General Objective 8.0 Know the challenges and prospects of health data management						
13-14	8.1 Explain challenges health data management 8.2 Explain issues in data management as follows: – Simultaneously Accessing Data Across Multiple Databases. – Fragmented Data Constantly Causing Problems. – Data Security and Data Breaches (Storage Issues) – Regulations and Compliance. – Changes to Data. – Healthcare Data Capturing Issues. – Lack of Data Cleaning. 8.3 Describe various ways to address the challenges 8.4 Describe prospects of health data management	Explain 7.1 to 7.4	Textbooks, Charts, Forms and Reading materials.	Explain 7.1 to 7.4		Explain challenges of health data management

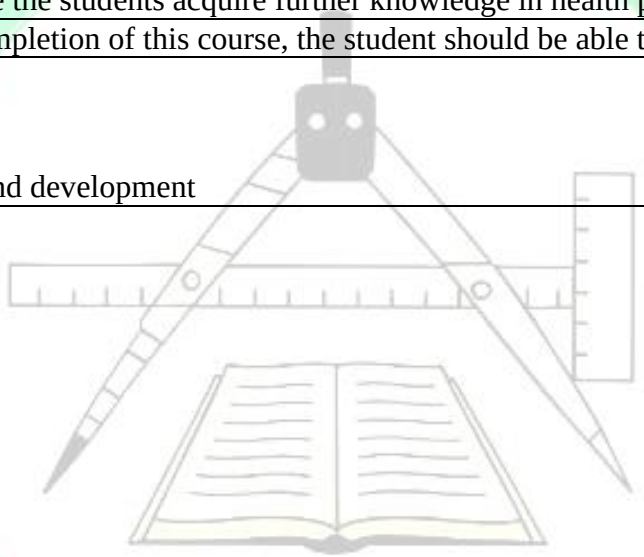
HIS 314: LEGAL AND ETHICAL ASPECT OF HIM II

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: COMPUTER PACKAGES II			
CODE:HIS 315			
DURATION (Hours/Week) Lecture: 1hr	**Tutorial: 0**	**Practical: - 2**	**Total: 3 (45hrs/semester)**
UNITS:2			
GOAL:This course is designed to enable students Acquire Knowledge and Skills to Use Software Application Packages.			
GENERAL OBJECTIVES:On completion of this course, the student should be able to:			
1.0 Know the use of Statistical Packages 2.0 Know Desktop Publishing Packages 3.0 Know Graphic Packages			

General Objective 1.0 Know Statistical Packages						
week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1-4	1.1 Explain Statistical packages. 1.2 Enumerate types of statistical packages. - SPSS - Minitab - SAS - Epi Info - STATA etc. 1.3 Demonstrate use of Statitical Packages.	Explain 1.1 and 1.2	White Board Marker, Projector Laptop Computer	To use Statistical Packages SPSS ,Ms Excel , ANOVA, t-test and Ms Word for data analysis.	Guide students to use Statistical Packages SPSS ,Ms Excel , ANOVA, t-test and Ms Word for data analysis.	Use Statistical Packages SPSS ,Ms Excel , ANOVA, t-test, Ms Word, SAS, Epi Info STATA for data analysis.
General Objective 2.0 Know Desktop Publishing Packages.						
5-7	2.1 Explain desktop publishing package 2.2 List types of desktop publishing packages - Corel Draw - Microsoft publisher - Ventura - QuarkXpress - SerifPagePlus - Page Maker - Page shop etc. 2.3 Demonstrate use of Desktop Publishing.	Explain 2.1 to 2.3	White Board Marker, Multimedia Projector Laptop Computer	To Desktop Publishing Packages and Desktop Publshing.	Guide students to explain Desktop Publishing Packages and Desktop Publshing.	Use Desktop Publishing Packages and Desktop Publshing.

General Objective 3.0:	Know Graphic Packages					
5-7	3.1 Explain Graphic packages. 3.2 List types of graphic packages - Paint - Photoshop - Gimp etc. 3.3 Demonstrate use of Graphic packages	Explain 3.1 to 3.3	White Board Marker, MultimediProjector Laptop Computer	To use Graphic Packages to draw various images.	Guide students to Graphic Packages to draw various images.	Use Graphic Packages to draw various images.

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	HEALTH PLANNING AND MANAGEMENT II		
CODE:	HIS 316		
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 0**	**Total: 2 (30hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable the students acquire further knowledge in health planning and management			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Know the concepts of organization 2.0 Understand the concept of staffing 3.0 Understand the concept of leading 4.0 Understand the concept of training and development			



PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: Health Planning and Management II		**Course Code:** HIS 316		**Contact Hours:** 30		
COURSE SPECIFICATION:	Theoretical Content: 2		Practical Content: 0			
General Objective: 1.0: Know the concepts of organization						
Week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
	1.1 Define Organizing 1.2 Define Organization 1.3 Explain the following terms: - Organizing - Organization 1.4 Describe the characteristics of an organization 1.5 List the steps in organization of health services 1.6 Explain the steps in organization of health services 1.7 Describe organizational chart and organogram at primary, secondary and tertiary health care.	Explain 1.1 – 1.7	Textbooks, Charts and Forms, Reading materials			Define organizing and organization Explain organizing and organization Describe the characteristics of an organization List the steps in organization of health services
General Objective: 2.0: Understand the concept of staffing						
	2.1 Define staffing	Explain 2.1 – 2.6	Textbooks, Charts and			Define staffing

	2.2 Define the following terms: - Staff recruitment - Staff selection - Staff appraisal 2.3 Explain the terms defined in 2.2 above 2.4 Define Staff motivation 2.5 Outline the following theories of motivation: - Abraham Maslow's Hierarchy of needs - Herzberg's Two-Factor Theory - Theory X and Y 2.6 Explain the theories outlined in 2.5 above		Forms, Reading materials			Define recruitment, selection and appraisal of staff Explain recruitment, selection and appraisal of staff Define motivation Explain the theories of motivation
General Objective: 3.0: Understand the concept of leading						
	3.1 Define the following: - Leading - Leadership 3.2 Outline the different styles of leadership as follows: - Autocratic - Democratic - Laissez fair - Paternalistic - Manipulative	Define 3.1 Outline the different styles of leadership Explain 3.3 and 3.4	Textbooks, Charts and Forms, Reading materials			Define leading and leadership Outline the styles of leadership Explain styles of leadership Explain advantages and disadvantages of

	3.3 Explain the styles of leadership outlined in 3.2 above. 3.4 Explain the advantages and disadvantages of the leadership styles outlined in 3.2 above.					leadership styles
General Objective: 4.0: Understand the concept of training and development						
	4.1 Define training 4.2 Outline the types of training - Pre-service training - In-service training 4.3 Explain the types of training outlined in 4.2 above. 4.4 Outline the steps in training process - Training need assessment - Develop training plan - Develop training materials - Conduct training - Supportive supervision after the training 4.5 Explain the steps outlined in 4.4 above. 4.6 Explain the following types of training methods:	Explain 4.1 – 4.8	Textbooks, Charts and Forms, Reading materials			Define training Explain types of training Outline the steps in training process Explain the methods of staff training

	- Training manuals - Group discussion - Demonstration - Work sample - Lectures 4.7 Explain the importance of training 4.8 Describe staff development					Explain the importance of staff training Describe staff development

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE : DRUGS AND BODY SYSTEMS			
CODE: HIS 317			
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 0**	**Total: 2 (30hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable the student acquire the knowledge of the effects of drugs on the body system.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Know the definition of drugs and classification of drugs. 2.0 Know drugs of the central nervous system. 3.0 Know drugs of the respiratory system. 4.0 Know drugs of the gastrointestinal system. 5.0 Know drugs of the renal system. 6.0 Know drugs of the reproductive system.			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: Drugs and Body Systems		**Course Code:** HIS 317		**Contact Hours:** 30		
COURSE SPECIFICATION:	Theoretical 2 Content:		Practical 0 Content:			
General Objective 1.0: Know the effects of drugs on the body systems.						
Week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
	1.1 Define drugs. 1.2 List classes of drugs. 1.3 Explain the need for drug usage. 1.4 Describe the procedure for serving drugs. 1.5 Explain the general absorption/ excretion of drugs in the body. 1.6 Explain adverse drug reaction in the body system	Explain 1.1-1.6	Textbooks, Drug Samples, Reading materials, Classroom resources			Define drugs and list classes of drugs Explain the need for drug usage. Describe the procedure for serving drugs. Explain adverse drug reaction in the body system
General Objective 2.0: Know drug of the central nervous system.						
	2.1 Describe the structure of the central nervous system. 2.2 Identify some drugs that act on the central nervous system.	Explain 2.1-2.4	Textbooks, Drug Samples, Reading materials, Classroom resources			Describe the structure of the central nervous system.

	2.3 Classify drugs of the central nervous system: - monoamine, - tricycles, - psychosomatic - oxia inhibitors - tranquilizers etc. 2.4 Explain the active substances of drugs of Central Nervous system.					Classify drugs of the central nervous system Explain the active substances of drugs of Central Nervous system
General Objective 3.0: Know drugs of the respiratory system.						
	3.1 Describe the structure and functioning of the respiratory system. 3.2 Identify some drugs that act on the respiratory center e.g. - respiratory depressants, - stimulants, - drugs affecting acid – base balance. 3.3 3.3 Explain asthma and aerosol therapy.	Explain 3.1 – 3.3	Textbooks, Drug Samples, Reading materials, Classroom resources			Describe the structure and functioning of the respiratory system. Identify some drugs that act on the respiratory center. Explain asthma and aerosol therapy.
General Objective 4.0: Know drugs of the gastrointestinal system.						
	4.1 Describe the gastro-intestinal system and the liver.	Explain 4.1 – 4.6	Textbooks, Drug Samples, Reading			Describe the gastro-intestinal system and the

	4.2 List drugs that increase gastric secretion i.e. - histamine. 4.3 List examples of drugs that reduce or neutralize gastric secretions. 4.4 Describe the effects of drugs on intestinal motility. 4.5 Describe the relationship between drugs and intestinal bacteria. 4.6 Identify some of the drugs that act on the pancreas and liver.		materials, Classroom resources			liver. List drugs that increase gastric secretion Describe the effects of drugs on intestinal motility. Identify some of the drugs that act on the pancreas and liver.
General Objective	5.0: Know drugs of the renal system.					
	5.1 Describe the structure of the renal system. 5.2 Describe the effects of drugs on renal functions. 5.3 List examples of drugs that act on the renal circulation i.e - osmotic drugs, - acidifying drugs. 5.4 Explain the functions of the	Explain 5.1 - 55	Textbooks, Drug Samples, Reading materials, Classroom resources			Describe the structure of the renal system. Describe the effects of drugs on renal functions. List examples of drugs that act on the renal Circulation.

	bladder. 5.5 List examples of drug that influences the bladder activities.					List examples of drug that influences the bladder activities.
General Objective	6.0: Know drugs of the reproductive system					
	6.1 Describe the reproductive system. 6.2 Identify sex hormones i.e. - gonadotrophin. 6.3 List drugs that act on the reproductive system i.e. - oestrogen and anti-oestrogens, - progestagens, - contraceptives, etc. 6.4 Explain effects of drugs on the foetus. 6.5 List types of foetal conditions that arise from 6.4 above.	Explain 6.1 – 6.5	Textbooks, Drug Samples, Reading materials, Classroom resources			Describe the reproductive system. Identify sex hormones List and discuss drugs that act on the reproductive system. Explain effects of drugs on the foetus.

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: HEALTH CARE FINANCING			
CODE: HIS 318			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 0**	**Total: 2 (30hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable students Acquire knowledge of Financing Health Care in Nigeria.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Know the history of healthcare services in Nigeria. 2.0 Understand Health Care Financing. 3.0 Know Options for Financing Health Care. 4.0 Understand the National Health Insurance Scheme (NHIS) in Nigeria.			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: HEALTH CARE FINANCING **Course Code: HIS 318** **Contact Hours: 45 Hours**						
COURSE SPECIFICATION: Theoretical Content:1 Practical Content: 2						
General Objective 1.0: Know the History of Health Care Services in Nigeria.						
week	Specific Learning Outcome	Teachers Activities	Learning Resources	Specific Learning Outcome	Teachers Activities	Evaluation
1-2	1.1 Outline the history of health service in the pre-independence era in Nigeria. 1.2 Explain the National Health Development Plan.	Explain 1.1 and 1.2	Textbooks, Journals, White Board, Marker Schematic diagram of History of Nigerian Health care Service.	To narrate the history of health service in the pre-independence era in Nigeria. To explain the National Health Development Plan (from the first to the fifth plan)	Guide students to narrate the history of health service in the pre-independence era in Nigeria. Guide students explain National Health Development Plan (from the first to the fifth plan)	Narrate the history of health service in the pre-independence era in Nigeria Explain National Health Development Plan (from the first to the fifth plan)
General Objective 2.0 Understand Health care Financing.						
3-4	2.1 Explain health care financing. 2.2 List the functions of the health system. 2.2 Describe each function of the health system. 2.3 State the functions of health care	Explain 2.1 and 2.5	Textbooks Journals White Board Marker	To explain healthcare financing. To describe the functions of the health system To explain the functions of healthcare	Guide the students to explain the concept and functions health system Guide the students to explain the	Explain the concept and functions health system. Explain the concept and functions

	financing. 2.4 Explain the functions of health care financing.			financing	concept and functions of healthcare financing	healthcare financing
General Objective 3.0 Know Options for Financing Health Care						
5-7	3.1Explain the various options available for healthcare financing. 3.2 State government sources of healthcare financing. 3.3 Explain out-of-pocket expenditure in financing healthcare. 3.4 Explain private sources of healthcare financing. 3.5 Discuss the roles of non-governmental organization in financing healthcare. 3.6 Describe social health insurance under the following headings: - Relevance - Quality - Effectiveness - Efficiency 3.7 Discuss the advantages and disadvantages of social health insurance	Explain 3.1 and 3.7	Textbooks Journals White Board Marker	To explain various options available for healthcare financing To outline government sources of healthcare financing To explain private sources of healthcare financing Explain social health insurance	Guide the students to explain various options available for healthcare financing , government's sources of healthcare financing and social health insurance	Explain the various options available for healthcare financing including government sources and social health insurance

General Objective 4.0Know Options for Financing Health Care.						
5-7	4.1 Explain National Health Insurance Scheme (NHIS). 4.2 Outline briefly, the history of National Health Insurance Scheme in Nigeria. 4.3 Describe the current operations of NHIS in Nigeria. 4.4 Explain community-based health financing in Nigeria. 4.5 Explain risk management in Health Insurance Schemes	Explain 4.1 and 4.5	Textbooks Journals White Board Marker	To explain the history, Operations and Management of National Health Insurance Scheme (NHIS)	Guide the students narrate the history, Operations and Management of National Health Insurance Scheme (NHIS) of NHIS	Explain history of NHIS. Describe the operations of NHIS in Nigeria Explain risk management in Health Insurance Schemes

SEMESTER I

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE:	OPERATIONS RESEARCH I		
CODE:	HIS 312		
DURATION (Hours/Week) **Lecture: 1hr**	**Tutorial: 0**	**Practical: - 2 hrs**	**Total: 3 (45hrs/semester)**
UNITS:	2		
GOAL:	This course is designed to enable the students acquire advanced knowledge in operation research for Health Information Management		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		

1.0 Understand the nature of operations research.
2.0 Understand the definition and scope of linear programming.
3.0 Understand the graphical method of solving linear programming problems (involving only two variables).
4.0 Understand the simplex method of solving linear programming problems.
5.0 Understand sensitivity analysis.
6.0 Understand the principle of duality and its application.
7.0 Understand transportation and assignment problems
8.0 Understand network analysis.
9.0 Understand the basic concepts of queuing.
10.0 Understand basic simulation techniques.
11.0 Understand inventory theory (deterministic models only).

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
Course: Operations Research			**Course Code:** HIS 312		**Contact Hours: 45**	
COURSE SPECIFICATION:		Theoretical Content: 1		Practical Content: 2		
General Objective: 1: Understand the nature of operations research						
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Define operations research. 1.2 Outline the history of operations research. 1.3 Explain the concept of model building in operations research. 1.4 State the principles of modelling. 1.5 State the advantages and disadvantages of models in operations research.	Explain 1.1 to 1.5	Textbooks, Charts and Forms, Reading materials	Explain 1.1 to 1.5		Explain advantages and disadvantages of models in operations research.
General Objective: 2: Understand the definition and scope of linear programming						
2	2.1 Define linear programming. 2.2 Define a linear programme. 2.3 State the scope of linear programming. 2.4 Explain linear megnalities, their graphs and solutions. 2.5 State the two methods of solving linear programming problems e.g. graphical and simplex.	Explain 2.1 to 2.5	Textbooks, Charts and Forms, Reading materials Lecture Notes	Explain 2.1 to 2.5		Explain two methods of solving linear programming problems
General Objective:3.0: Understand the graphical method of solving linear programming problems (involving only two variables).						
3	3.1 Draw graphs for the constraints of a linear programming problem 3.2 Identify the feasibility region in 3.1 above. 3.3 Identify the vertex of the	Explain 3.1 to 3.5	Textbooks, Charts and Forms, Reading materials Graph books	Explain 3.1 to 3.5	Guide students to solve problems with two	Identify the feasibility region Solve linear

	feasibility region in 3.2 above 3.4 Identify feasibility solution area (convex region). 3.5 Locate the vertices for the solution using the objective function. 3.6 Solve problems with two variables using graphs				variables using graphs	programming problem with two variables using graphs
General Objective: 4.0 : Understand the simplex method of solving linear programming problems						
4-5	4.1 Explain how to develop simplex algorithm 4.2 Identify basic variables, non-basic variables shadow prices (cost, evaluations etc). 4.3 Describe how to develop simplex method with equalities as constraints. 4.4 Apply the simplex method to problems involving few variables. 4.5 Make use of a computer package for the simplex method	Explain 4.1 to 4.4	Textbooks, Charts and Forms, Reading material, computer package	Explain 4.1 to 4.4	Guide students use computer package for simplex method	Explain simplex method with equalities as constraints.
General Objective: 5.0: Understand sensitivity analysis.						
6	5.1 Explain sensitivity analysis techniques. 5.2 Apply the techniques of sensitivity analysis to some practical problems.	Explain 5.1	Textbooks, Charts and Forms, Reading material, computer package	Explain 5.1	Guide students to apply the techniques of sensitivity analysis to some practical problems.	Explain sensitivity analysis techniques
General Objective: 6.0: Understand the principle of duality and its application.						
7	6.1 Explain how to derive dual linear	Explain 6.1 to	Textbooks,	Explain 6.1 to	Guide	Explain the

	program from primal program. 6.2 Solve optimization problems graphically using dual linear program. 6.3 Solve optimization problems by the dual simplex method. 6.4 Obtain the solution of the dual program from the primal program	6.4	Charts and Forms, Reading material,	6.4	students Solve optimization problems by the dual simplex method	dual program from the primal program
General Objective: 7.0: Understand transportation and assignment problems						
8-9	7.1 Define transportation problems. 7.2 Explain northwest corner methods for solving transportation problem. 7.3 Solve simple transportation problems using the simplex method. 7.4 Explain least-last rule as an alternative method of solving transportation problems. 7.5 Solve an assignment problem as a special transportation problem. 7.6 Explain assignments problems 7.7 Explain the row/column methods for solving assignments problems. 7.8 Use a computer package to solve a transportation problem 7.9 Use a computer package to solve an assignment problem	Explain 7.1 to 7.7	Textbooks, Charts and Forms, Reading material, computer package	Explain 7.1 to 7.7	Guide student to exercises in 7.7 and 7.8 Guide students to a computer package to solve a transportation problem	Explain simple transportation problems Explain assignments problems
General Objective: 8.0: Understand network analysis.						
10-11	8.1 Define network analysis. 8.2 List some examples of network	Explain 8.1 to 8.6	Textbooks, Charts and Forms,	Explain 8.1 to 8.6	Guide students to	

		flow problems. 8.3 State and explain the origin of PERT and CPM techniques as aids to efficient project management. 8.4 List some applications of PERT and CPM in project managements. 8.5 Explain and evaluate the earliest and latest event times, float times and project completion time. 8.6 Explain a critical path and methods of identifying. 8.7 Explain how to estimate optimistic, pessimistic, most likely times.		Reading material, computer package		estimate optimistic, pessimistic, most likely times.	Explain critical path and methods of identifyingcritical path
General Objective:		9.0: Understand the basic concepts of queuing.					
12-13	9.1 9.2 9.3 9.4 9.5 9.6	Explain queuing theory. Define basic queuing terminologies (arrival/service times, traffic intensity etc.) State the distributions of arrival and service times as Poisson and exponential processes Define and state the assumptions of a simple(M/M/1) queue Define and state the assumptions of a double channel, (M/M/2) queue State and apply the formulae for M/M/1 to practical problems.	Explain 9.1 to 9.7	Textbooks, Charts and Forms, Reading material, computer package	Explain 9.1 to 9.7	Guide students on how to apply the formulae for M/M/2 to practical problems.	explain the assumptions of simple queue

	9.7 State and apply the formulae for M/M/2 to practical problems.					
General Objective: 10: Understand basic simulation techniques.						
14	10.1 Define simulation 10.2 List the various simulation techniques 10.3 Describe Monte-Carlo methods 10.4 Apply Monte-Carlo methods to simulation 10.5 Apply computer packages on simulation techniques	Explain 10.1 to 10.5	Textbooks, Charts and Forms, Reading material, computer package	Explain 10.1 to 10.5	Guide students to apply computer packages on simulation techniques	Explain Monte-Carlo methods to simulation
General Objective 11.0: Understand inventory theory (deterministic models only).						
15	11.1 Explain inventory theory 11.2 Define the classical economic order quantity model (EOQ) 11.3 Explain the components of the EOQ and QST models 11.4 Obtain the optional order quantity and, optional time between replenishment by minimizing the cost function and applying partial derivatives. 11.5 Solve simple inventory problems. 11.6 State the cost functions of EOQ with shortages allowed. 11.7 Explain the components in the model stated in 3.6 11.8 Explain the model in 3.6 by the use of a graph. 11.9 Solve some simple problems to illustrate the use of the models in 3.6.	Explain the concepts covered	Textbooks Lecture Notes		Supervise student exercises in 3.10 and 3.11and assess student work	Quiz Test Assignment Examination

	11.10 Carry out sensitivity analysis of the classicalEOQ model. 11.11 Determine the optional order quantity, minimum cost and the inventory level just after replenishment from the model in 3.6.					

GNS 302 COMMUNICATION IN ENGLISH III

YEAR 1 SEMESTER II

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: Sampling Techniques			
CODE: HIS 321			
DURATION (Hours/Week) **Lecture: 1hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable students acquire knowledge in Hospital Statistics			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand systematic sampling 2.0 Understand single stage cluster sampling 3.0 3. Understand stratified random sampling. 4.0 Understand two stage sampling. 5.0 Understand stratified two stage sampling 6.0 Understand ratio estimate under stratified sampling. 7.0 Understand the treatment of non-sampling error			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: **Sampling Techniques**			**Course HIS Code 321**		**Contact Hours:** 45 Hours	
COURSE SPECIFICATION:	Theoretical Content: 1			Practical Content: 1		
GeneralObjective: **1.0** Understand systematic sampling						
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1-2	1.1 Define systematic sampling 1.2 Explain linear and circular systematic sampling 1.3 Estimate mean and variance under systematic sampling 1.4 Estimate mean and variance under systematic sampling 1.5 Estimate relative precision in systematic sampling	Explain 1.1 to 1.4	Textbooks Lecture Notes calculators	Explain 1.1 to 1.4	Guide students to estimate relative precision in systematic sampling	Explain linear and circular systematic sampling
General Objective 2:0 Understand single stage cluster sampling						
3-6	2.1 Define cluster sampling 2.2 State the reasons for cluster sampling 2.3 Determining optimum unit 2.4 Describe single-stage cluster sampling of equal and unequal sizes 2.5 Construct confidence intervals under sampling of	Explain 2.1 to 2.7	Textbooks Lecture Notes calculators	Explain 2.1 to 2.7	Guide students to construct confidence intervals under sampling of equal size	Explain reasons for cluster sampling

	equal size 2.6 Estimate population parameters under sampling of unequal size under unequal probabilities 2.5 Estimate population parameters under sampling of equal sizes 2.6 Construct confidence intervals under sampling of equal size 2.7 Estimate population parameters under sampling of unequal size under unequal probabilities. 2.8 Estimate population parameters under sampling using ratio-to-size 2.9 Describe sampling with probability proportional to size (PPS) 2.10 Estimate parameter sampling of unequal sizes under sampling with probability proportional to size 2.11 Estimate relative precision sampling equal and unequal size 2.12 Explain variance function and cost function in determining optimum unit.				Guide students to estimate population parameters under sampling of unequal size under unequal probabilities	Explain variance function and cost function in determining optimum unit.
General Objective: **3.0** Understand stratified random sampling						
7-8-	3.1 Define stratified	Explain	Textbooks	Explain 3.1	Guide the	Explain reasons for

	random sampling 3.2 State reasons for stratification 3.3 Explain the principles of stratification 3.4 Estimate mean, total, proportion and variance under stratified sampling using the allocations in 3.3 above. 3.5 Construct confidence interval for population parameters 3.6 Estimate relative precision in stratified sampling 3.7 Determine the size of sample in stratified sampling 3.8 Explain equal allocation, proportional allocation, optimum allocation, and Neyman allocation	3.1 to 3.7	Lecture Notes calculators	to 3.7	students to estimate mean, total, proportion and variance under stratified	stratification
General Objective 4:0 Understand two stage sampling						
9-10	4.1 Describe the structure and uses of sampling 4.1 Estimate population parameters under sub sampling with units of equal and unequal sizes 4.3 Construct confidence interval for population parameters under sub	Explain 4.1 to 4.4	Textbooks Lecture Notes calculators	Explain 4.1 to 4.4	Guide students to determine sample size and allocation to the two stages	Explain the confidence interval for population parameters under sub sampling with units of equal and unequal sizes

	sampling with units of equal and unequal sizes 4.4 Determine sample size and allocation to the two stages					
General Objective 5.0 Understand stratified two-stage sampling						
11-12	5.1 Describe stratified sampling 5.2 Estimate population two-stage parameters in two-stage sampling 5.3 Determine size of sample in stratified two-stage sampling 5.4 Determine the allocation of sample sizes to different strata and stages 5.5 Estimate relative precision under stratified two-stage sampling	Explain 5.1 to 5.5	Textbooks Lecture Notes calculators	Explain 5.1 to 5.5	Guide students to determine the allocation of sample sizes to different strata and stages	Explain stratified sampling
General Objective6.0 Understand ratio estimation under stratified sampling.						
13	6.1 Explain ratio estimation 6.2 Estimate population ratio by combined ratio method 6.3 Compare separate and combined estimates 6.4 Estimate the bias of ratio estimator 6.5 Describe optimum allocation in ratio estimator	Explain 6.1 to 6.5	Textbooks Lecture Notes calculators	Explain 6.1 to 6.5		Explain ratio estimation
General Objective 7.0 Understand the treatment of non-sampling error						
14-15	7.1 Identify and explain	Explain	Textbooks	Explain	Guide	

	non-sampling error 7.2 Construct models for non-sampling error 7.3 State the assumptions underlying non-sampling error 7.4 Compute the estimate of the population mean under assumptions in 7.3 above 7.5 Compute the variance of the estimate in 7.4 above	7.1 to 7.5	Lecture Notes calculators	7.1 to 7.5	students to construct models for non-sampling error	

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: HEALTH INFORMATICS II			
CODE: HIS 322			
DURATION (Hours/Week) Lecture: 2hrs	Tutorial: 0	Practical: - 1	Total: 2 (45hrs/semester)
UNITS: 3			
GOAL: This course is designed to enable students acquire knowledge of advanced concepts and application of informatics in Health Information Management			
GENERAL OBJECTIVES:On completion of this course, the student should be able to: 1.0 Understand telemedicine, teleconferencing and robotics applications 2.0 Understand medical informatics 3.0 Understand nursing informatics 4.0 Understand bioinformatics 5.0 Understand geographical informatics			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	HEALTH INFORMATICS		**Course Code: HIS 322**		**Contact Hours: 45 Hours**	
COURSE SPECIFICATION:	**Theoretical Content: 2**			**Practical Content: 1**		
General Objective 1.0:	Understand telemedicine, teleconferencing and robotics applications					
week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1-	1.1 Explain the following concepts: - Telemedicine - Teleconferencing - Robotics 1.2 Defines telemedicine (Remote medical services) 1.3 List requirements for tele-medicine: - Camera, Internet services, Computers, High bandwidth etc. 1.4 Explain its merits: - Improved health, - Wellness of workforce, - Reduce cost, increased patient satisfaction - -Groups students to present seminar on telemedicine.	Explains 1.1 to 1.4 as indicated in the curriculum	White board/ marker Charts to list types Text books/ journals Computer set Power point slides Multimedia projector Supplemental readings (Web links)		Guides the students to understand the following concepts: Telemedicine, Teleconferencing, Robotics List requirements for telemedicine and explain the merits of each listed.	Explain the following concepts: Telemedicine Teleconferencing Robotics Explain the merits of telemedicine In health care.

General Objective 2.0: Understand medical informatics						
	2.1 Define medical informatics 2.2 Describe how medical informatics work and its uses 2.3 Describe the applicability of medical informatics	Explain 2.1 to 2.3	-White board/ marker - charts to list parts -text books/ journals -Power point slides -Multimedia projector Supplemental readings (Web link	Demonstrate e-health with the use of available EMR software	Guide and supervise the students to perform the task in 2.3	Use Computer to demonstrate the applicability of medical informatics EMR Software
General Objective 3.0: Understand nursing informatics						
	3.1 Define nursing informatics 3.2 List impacts of informatics on nursing process	Explain 3.1 and 3.2	White board/ marker Charts to list parts text books/ journals Computer set Power point		Guides the students explain nursing informatics and its impacts on nursing process	Define nursing informatics. Explain the impact of nursing informatics on nursing process

			slides Multimedia projector Supplemental readings (Web links)			
General Objective 4.0: Understand bioinformatics						
	4.1 Define bioinformatics 4.2 List biological data process areas	Explain 4.1 to 4.2	-White board/ marker - charts to list types -text books/ journals -Computer set -Power point slides -Multimedia projector Supplemental readings (Web links)		Guide students to understand the basis of bioinformatics, and supervise students to explain bioinformatics process areas.	Explain bioinformatics. State the biological data process areas

General Objective 5.0:	Understand geographical informatics					
	5.1 Define geographical informatics 5.2 Relate geographical informatics to health 5.3 Elaborate essentials of geographical informatics 5.4 Explain the applications of Geographical using Remote Sensing 5.5 List the usefulness of geographical informatics in health care system	Explain 5.1 to 5.5	-White board/ marker - charts to list types -text books/ journals -Computer set -Power point slides -Multimedia projector Supplemental readings (Web links)	Demonstrate the applications of geographical informatics using remote sensing.	Guide the students to explain geographical informatics. Relate geographical informatics to health Demonstrate the applications of geographical informatics using remote sensing.	Define geographical informatics Demonstrate the applications of geographical informatics using remote sensing List the usefulness of geographical informatics in health care system

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	MANAGEMENT OF HUMAN RESOURCES FOR HEALTH		
CODE:	HIS 323		
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: 0**	**Total: 2 (30hrs/semester)**
UNITS: 2			
GOAL: This programme is designed to provide students with the knowledge for planning, production, distribution, retention and management of effective and efficient health workforce for qualitative and quantitative health care delivery			
GENERAL OBJECTIVES: On completion of this course, the student should be able to: 1.0 Understand Management of Human Resources for Health. 2.0 Know the components of Human Resource Management. 3.0 Know the process of effective recruitment. 4.0 Understand Performance Management. 5.0 Understand Orientation and Induction 6.0 Understand Health Workforce Retention 7.0 Know Work Climate.			

PROGRAME : HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: Management of Human Resources for Health	**Course Code:** HIS 323		**Contact Hours:** 30			
COURSE SPECIFICATION:	Theoretical Content: 2		Practical Content: 0			
Suggestion: GOAL: This programme is designed to provide students with the managerial knowledge to effectively and efficiently manage workforce for qualitative and quantitative health care delivery.						
GeneralObjective:1.0: Understand Management of Human Resources for Health.						
Week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
	1.1 Define Human Resources for Health (HRH) 1.2 Explain the importance of Human Resources for Health 1.3 Describe the components of HRH management 1.4 Explain the benefits of establishing strong HRHM systems 1.5 Differentiate between human resources for health unit and Personnel management unit	Explain 1.1 – 1.5	Textbooks, internet facilities, White board/ marker, flip charts, training module			Define Human Resources for Health (HRH) Explain the importance of Human Resources for Health Describe the components of HRH management
General Objective: 2.0: Know the components of Human Resource Management.						
	2.1 List components of Human Resource for Health Management - HRM capacity - Workforce planning - Personnel policy & practice	Explain 2.1 – 2.2	Textbooks, internet facilities, White board/			List components of Human Resource for Health

	- Human Resources for Health Information System - Performance management - HR leadership & management - Training 2.2 Describe each component listed in 2.1 above		marker, flip charts, training module			Management Describe components of Human Resource for Health Management
General Objective:3.0: Know the process of effective recruitment						
	3.1 Define recruitment 3.2 List the components of effective recruitment: - Job description - Required qualification - Sourcing - Short listing - Selection - Deployment - Orientation/Induction 3.3 Explain the process of recruitment listed in 3.2 above	Define 3.1 List the components of effective recruitment Explain the process of recruitment	Textbooks, internet facilities, White board/ marker, flip charts, training module			Define recruitment List the components of effective recruitment Explain the process of recruitment
General Objective 4.0: Understand performance management						
	4.1 Define performance. 4.2 Explain performance management 4.3 Outline key performance factors	Explain 4.1-4.7	Textbooks, internet facilities, White board/ marker, flip charts,	-		Define performance Explain performance

	4.4 Describe performance feedback 4.5 Define work environment 4.6 List tools for positive work environment: - Motivation - Skills and knowledge - Employee performance - Diagnosing individual performance tool - Employee satisfaction survey 4.7 Explain each tool listed in 4.6 above		training module			management Describe performance feedback List and explain tools for positive work environment
General Objective: 5.0: Understand orientation and induction						
	5.1 Define orientation 5.2 Define induction 5.3 Explain orientation and induction 5.4 Differentiate between orientation and induction 5.5 List factors that affect orientation and induction of newly employed staff. 5.6 State the advantages and	Explain 5.1 – 5.8	Textbooks, internet facilities, White board/ marker, flip charts, training module	Plan an induction/ orientation programme Carry out an induction/ orientation	Guide students on how to plan an induction / orientation program me Guide	Define orientation and induction Explain orientation and induction Differentiate between orientation

	disadvantages of orientation and induction. 5.7 Plan an induction/orientation programme 5.8 Carry out the induction/orientation programme			programme	students to carry out an induction / orientation programme	and induction
General Objective:6.0: Understand Health workforce retention						
	6.1 Define Health Workforce retention. 6.2 Define Attrition in relation to workforce. 6.3 Outline causes of attrition 6.4 Explain the process of retaining health workforce. 6.5 State rationale for retaining health workforce. 6.6 Explain factors relating to decisions to relocate/stay in rural and remote areas. 6.7 List approaches to improving attraction and retention of health workforce in remote and rural areas. 6.8 Describe each approach listed	Explain 6.1-6.7	Textbooks, internet facilities, White board/ marker, flip charts, training module			Define Health Workforce retention. Define Attrition in relation to workforce. Explain the process of retaining health workforce. Describe approaches to attracting

	in 6.7 above.					and retaining remote area workforce.
General Objective:7.0: Understand work climate						
	7.1 Define work climate 7.2 List factors that affect work climate 7.3 Describe each factor listed above 7.4 Explain factors that can make work climate attractive	Explain 7.1 – 7.4	Textbooks, internet facilities, White board/ marker, flip charts, training module			Define work climate. List and describe factors that affect work climate. Explain factors that can make work climate attractive

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE: MONITORING AND EVALUATION III			
CODE:HIS 324			
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS:3			
GOAL: This course is designed to enable students Acquire Skills in Monitoring and Evaluation Methods in Health Care Management.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the Process of Monitoring and Evaluation 2.0 Understand key steps in the development of Monitoring and Evaluation Systems 3.0 Understand the Concepts of Projects, Programmes and Interventions with reference to Health Programmes 4.0 Formulate Health Indicators 5.0 Know Types of Evaluation 6.0 Understand the Theory and Practice of Evaluation 7.0 Know the Tools and methodology of Monitoring and Evaluation in Health Programme. 8.0 Know the Components of Functional Health Programme System 9.0 Understand the Application of Measurement and Evaluation in Health Care Programmes.			

General Objective:1.0 Understand the Process of Monitoring and Evaluation						
WEEK	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Objectives**	**Teachers Activities**	**Evaluation**
1.1	1.2 Give the overview of the concepts of Monitoring and Evaluation	Classroom resources				Quiz Test Assignments
General Objective: 2.0 Understand key steps in the development of Measurement and Evalaution Systems**.**						
2.1 m	2.2 Enumerate the key steps in developing M&E systems 2.3 Explain how to carry out readiness assessment to identify gaps 2.4 Explain how to develop performance results. 2.5 Explain how to select key performance indicators 2.6 Explain how to set baselines and gathering data on indicators 2.7 Explain how to set performance targets 2.8 State how to monitor for results. 2.9 Explain how to evaluate for outcomes and impact. 2.10 Explain how to report findings. 2.11 State how to use the findings. 2.12 Explain the strategies for sustaining the system	Explain 2.1 – 2.12	Textbooks			Explain how to develop performance results. Explain how to select key performance indicators
General Objective:3.0: Understand the Concepts of Projects, Programmes and Interventions with in Health Programmes**.**						
	3.1 Give an overview of the	Explan 3.1	Classroom resources	Guide student		Explain overview

	concepts of projects, programmes and interventions in health Lectures			to set up health project, program and intervention		ofthe concepts of projects, programmes and interventions in health
General Objectives 4.0: Formulate Health Indicators						
	4.1 Give an overview the concept of indicators 4.2 Identify key indicators for health programmes in Nigeria – e.g. Malaria, HIV/AIDS, TB, etc	Expalin 4.1 – 4.2	Classroom resources	Guide and supervise the student to perform the task in 4.3		Identify key indicators for health programmes in Nigeria – e.g. Malaria, HIV/AIDS, TB
General Objective:5.0 Know types of evaluations						
	5.1 Define evaluation 5.2 Explain the different types of evaluations - Formative evaluation - Process evaluation - Effectiveness evaluation - Cost benefit analysi	Explain 5.1 – 5.2	Classroom resources	Guide the student on the activity in 5.3		Explain the different types of evaluations - Formative evaluation - Process evaluation - Effectiven ess evaluation Cost benefit analysi
General Objective 6.0: Understand the theory and practice of evaluation						
	6.1 Describe the different evaluation designs 6.2 Explain experimental design 6.3 Explain non-experimental design 6.4 Explain the quasi-		Classroom resources	Guide the student to perform the tasks in 6.7 and 6.8		Explain non-experimental design Explain the quasi-experimental

	experimental design 6.5 Enumerate the points to note in choosing a design Describe how to link evaluation designs with decisions					design
General Objective 7.0: Know the Tools and methodology of Monitoring and Evaluation in Health Programme						
	7.1 Explain the importance of tools and methodologies of M&E in health programmes 7.2 Enumerate the different methods used in the M&E of health programmes 7.3 Explain the following methods in M&E - sampling-related methods - core M&E methods - discussion methods - spatially distributed information - time-based pattern of change - analyzing linkages and relationships ranking and privatizatio	Explain 7.1 – 7.3	Classroom	Guide the student to perform the tasks in 7.4	Monitor and evaluate health programmes using the methods in 7.2	Explain the following methods in M&E - sampling-related methods - core M&E methods - discussion methods - spatially distributed informatio n - time-based pattern of change - analyzing linkages and relationshi ps - ranking and privatizati o
General Objective 8.0: Know the components of a functional M&E system						
	8.1 Explain the following	Explain 8.1	Classroom resources			Explain the

	components of an effective M&E system: - Organisational structures with M&E functions - Human capacity for M&E - Partnerships to plan, coordinate, and manage the HIV M&E system - National multi-sectoral M&E plan - Annual costed national M&E work plan - Advocacy, communications, and culture for M&E - Routine programme monitoring - Surveys and surveillance - National and sub-national databases - Supportive supervision and data auditing - Evaluation and research - Data dissemination and use.					following components of an effective M&E system
General Objective: 9.0 Understand the application of M&E in different aspects of life (M&E in health, M&E in governance, M&E in agriculture, M&E in project management, etc.)						
	9.1 Describe the application of M&E in Health. 9.2 Describe the application of M&E in Agriculture Describe the application of M&E in governance.	Explain 9.1 – 9.2				Explain the application of M&E in Health.

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE:	DISEASE CLASSIFICATION AND CLINICAL CODING III		
CODE:	HIM 312		
DURATION (Hours/Week) Lecture: 1hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 2(30hrs/semester)**
UNITS:	1		
GOAL:	This course is designed to enable student acquire knowledge and skills to code surgical operations.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know how to code surgical operations 2.0 Know Indexing 3.0 Know the coding and indexing of disease and surgical procedure.			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE:	DISEASE CLASSIFICATION AND CLINICAL CODING III	**Course HIS Code 312**		**ContactHours:**		**Total: 2(30hrs/semester)**
COURSE SPECIFICATION:	Theoretical Content: 1			Practical Content: 1		
GeneralObjective:	**1.0** Know how to code surgical operations					
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
	1.1 Explain Coding. 1.2 Explain coding procedure. 1.3 Describe the procedures involved in surgical operations (major and minor). 1.4 Describe the structure of the surgical operation index. 1.5 Explain the modus operandi of the KD-9 CMvol. 3 (procedure class) and ICD-10 vol.3 1.6 Describe the procedures for coding surgical operations and other procedures. 1.7 Illustrate the similarities and differences between ICD-9 CM OPCS and ICD 10 vol. 3 1.8 List out the tools	Explain 1.3 to 1.8	Text books, forms, case notes, ICD manuals, Classification of surgical operation Operation index card. Patient case note ICD-9; OPCS (Vol. 1 – 3) ICD-10 Vol.1 -3 ICDCM; ICDO	1.9 Code some surgical operations.	Guide student to carry out the activity in 1.9	Explain Coding. Explain coding procedure. Describe the procedures involved in surgical operations (major and minor).

	needed for coding surgical operations.					
General Objective: **2.0** Know Indexing						
	2.1 Define Indexing 2.2 Describe the purpose of indexing. 2.3 Explain the uses of disease and operation index. 2.4 List the information required in indexing cards. 2.5 Describe indexing system i.e. manual indexing, automated/mechanical indexing and computerization. 2.6 Describe the organization of indexing system i.e. design of index cards, storage, maintenance retention. 2.7 Explain simple and cross indexing system. 2.8 Describe multiple card system. 2.9 Enumerate the various ways of monitoring discharged patients records.	Explain 4.1 to 4.9	Textbooks, journals, Classification of surgical operations, Operation Index cards	Explain the procedure of assigning operation Code numbers		Explain procedures involved in coding operations in health facility

General Objective:	**3.0** Know the coding and indexing of disease and surgical procedure.					
			Index cards index cabinets computers	Code diseases and surgical procedures. Abstract and index the following: - Diseases and surgical procedures - External causes of injuries (Encode). - Factor influencing health status and contact with health services (V.code) - Morphology and neoplasm.	Supervise students index and code diseases and surgical procedures.	Abstract and index the following: - Diseases and surgical procedures - External causes of injuries (Encode). - Factor influencing health status and contact with health services (V.code) Morphology and neoplasm.

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: RESEARCH METHODS			
CODE: HIS 325			
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 4			
GOAL: This course is designed to provide the students with further knowledge of how to undertake research studies			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the meaning, types and purpose of research 2.0 Understand research problems and review of literature 3.0 Understand study designs 4.0 Understand sampling techniques used in research 5.0 Understand the role of statistics in research 6.0 Understand research ethics 7.0 Understand the meaning and concept of rhetorical strategies in research communication 8.0 Understand drafting and writing -up research outcomes and findings. 9.0 Apply knowledge and skills in research communication in Health Information Management			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: RESEARCH METHODS **Course Code:HIS 325** **Contact Hours: Total: 3 (45hrs/semester)**						
COURSE SPECIFICATION: Theoretical Content:2 Practical Content:1						
General Objective 1.0: Understand the meaning, types and purpose of research						
week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
	1.1 Define research 1.2 Explain types of research such as - historical, - descriptive, - experimental - etc. 1.3 Explain aims and purposes of research 1.4 Explain research protocol 1.5 Explain research proposal	Explain 1.1 to 1.5	Textbooks, Journals, White board/ markers and Internet resources	To explain the term research and explain its types such as historical, descriptive, Experimental, etc. To explain aim and purpose of research To explain research protocol and research proposal	Guide the students to define research and explain its various types Guide the students to explain the aim and purpose if research Guide the students to explain research protocol and research proposal	Describe research and explain its various types such as historical, descriptive, Experimental, etc. Explain aims and purposes of research Explain research protocol Explain research proposal
General Objective 2.0: Understand research problems and review of literature						
3	2.1 Explain research problem 2.2 Explain Review of Literature 2.3 Outline Goals and Objectives of Literature Review	Explain 2.1 to 2.8	Textbooks, Journals, White board/ markers and Internet resources	To explain research problem, research question and research hypothesis To explain review of	Guide the students to explain research problem, research question and	Explain research problem, research question and research hypothesis

	2.4 Explain search methods 2.5 Explain Research Question 2.6 Explain Hypothesis Formulation 2.7 Explain Theoretical Framework 2.8 Explain Conceptual Framework			literature, its goals and objectives and search methods To explain theoretical framework and conceptual framework	research hypothesis Guide the students to explain review of literature, its goals and objectives and search methods Guide the students to explain theoretical framework and conceptual framework	Explain review of literature, its goals and objectives and search methods Explain theoretical framework and conceptual framework
	General Objective 3.0: Understand study designs					
4-5	3.1 Define study designs 3.2 Explain Descriptive designs: 3.2.1 Individuals: • Case series • Cross-sectional 3.2.2 Population: • Correlation 3.3 Explain Analytical designs: 3.3.1 Observational: • Case control	Explain 2.1 to 2.3	Textbooks, Journals, White board/ markers and Internet resources	To define study design and explain various descriptive and analytical study designs	Guide the students to define study design and explain various descriptive and analytical study designs	Explain various methods of conducting research Explain the merits and demerits of each of the methods of conducting research

	• Cohort (i.e. Prospective and Retrospective) 3.3.2 Intervention: • Clinical trials					
General Objective 4.0:	Understand sampling techniques used in research					
6	4.1 Define Sample and Population 4.2 Explain Sample size estimation and determination 4.3 Outline the roles of sampling in medical research 4.4 Describe various sampling methods/techniques 4.5 Distinguish between probability and non-probability sampling 4.6 Discuss the relative advantages and disadvantages of each sampling	Explain 4.1 to 4.6	Textbooks, Journals, White board/ markers and Internet resources	To explain sample and population, explain sample size estimation and determination, and outline roles of sampling in medical research To describe various sampling techniques, distinguish between probability and non-probability sampling and discuss the relative advantages and disadvantages of each sampling	Guide the students to explain sample and population, explain sample size estimation and determination, and outline roles of sampling in medical research Guide the students to describe various sampling techniques, distinguish between probability and non-probability sampling and discuss the relative advantages and disadvantages of each sampling	Define Sample, Population and outline the roles of sampling in medical research Explain Sample size estimation and determination Describe various sampling techniques Distinguish between probability and non-probability sampling Discuss the relative advantages and disadvantages of each sampling

General Objective 5.0:	Understand the role of statistics in research					
7-8	5.1 Define basic statistics 5.2 Explain various test statistics used in research: - Chi-Square, - Correlation, - Regression analysis, - Student t – test - Z test, - ANOVA, - etc. 5.3 Discuss Statistical Software used in research: - SPSS - Ms Excel - Epi Info - STATA - Minitab etc. 5.4 Explain data collection procedures in research 5.5 Describe questionnaire design 5.6 Explain data analysis in research 5.7 Explain data management in research: - Data cleaning - Data coding and recording	Explain 5.1 to 5.6	Textbooks, Journals, White board/ markers, Internet resources, Statistical tables, Calculators and Laptop computers	To define statistics and explain various test statistics used in research To discuss Statistical Software used, explain data collection procedures in research and explain questionnaire design Explain data analysis and management in research	Guide the students to explain various test statistics used in research Guide the students to explain statistical software, data analysis and data management in research Guide the students to demonstrate questionnaire design and data collection procedures	Explain various test statistics used in research Explain statistical software, data analysis and data management in research Demonstrate questionnaire design and data collection procedures

General Objective 6.0: Understand research ethics							
9-10	6.1 Define research ethics 6.2 Trace the history ethics in research and practice: - The Nuremberg Code - The Belmont Report etc. 6.3 Describe specific unethical behaviours in research: - Tuskegee study of Syphilis - The Milligram Experiment etc. 6.4 Explain Principles of research: - The Informed Consent - Autonomy - Privacy - Confidentiality - Non Maleficence - Beneficence and - Justice 6.5 Describe the following issues in research: - Exploitation - Inducement - Compensation - Vulnerable groups in	Explain 6.1 to 6.8	Textbooks, Journals, White board/ markers, Internet resources, Statistical tables, Calculators and Laptop computers	To define statistics and explain various test statistics used in research To discuss Statistical Software used, explain data collection procedures in research and explain questionnaire design Explain data analysis and management in research	Guide the students to explain various test statistics used in research Guide the students to explain statistical software, data analysis and data management in research Guide the students to demonstrate questionnaire design and data collection procedures	Explain various test statistics used in research Explain statistical software, data analysis and data management in research Demonstrate questionnaire design and data collection procedures

	research (women, children) 6.6 Explain responsible conduct of research: - What makes research ethical - Types of research misconduct 6.7 Discuss regulation of research practice under the followings: - Committee of Research Ethics (COPE) - The National Code of Ethics - The Health Research Ethics Committee/Institutional Review Board - Roles of members of Ethics committees 6.8 Discuss ethics in scientific writing - Plagiarism - Salamisation - Authorship criteria - Gift authorship					
General Objective 7.0: Understand the meaning and concept of rhetorical strategies in research communication						
11	7.1 Explain rhetorical strategies 7.2 Explain types of rhetorical	Explain 7.1 to 7.4	Textbooks, Journals,	To explain rhetorical strategies	Guide the students to	Explain rhetorical

	strategies: - Argumentation Strategy - Cause and Effect Strategy - Division Strategy - Compare and contrast strategy - Narrative strategy - Description Strategy - Exemplification Strategy 7.3 Compare and contrast the types of rhetorical strategies in Health Information Management 7.4 Identify the process of search strategies in research communication - Finding literature sources - Using research databases - Integrating and crediting sources and avoiding plagiarism		White board/ markers, Internet resources, Statistical tables, Calculators and Laptop computers	and types of rhetorical strategies To compare and contrast the types of rhetorical strategies in Health Information Management Identify the process of search strategies	explain rhetorical strategies and types of rhetorical strategies Guide the students to compare and contrast the types of rhetorical strategies in Health Information Management Guide the students to Identify the process of search strategies	strategies and types of rhetorical strategies Compare and contrast the types of rhetorical strategies in Health Information Management Identify the process of search strategies
General Objective 8.0: Understand drafting and writing -up research outcomes and findings						
12-13	8.1 Explain the following basic concepts: - Research Findings, - Reports,	Explain 8.1 to 8.3	Textbooks, Journals, White board/ markers,	To explain research findings, research reports, clinical trials etc.	Guide the students to explain research findings,	Explain research findings, research reports, clinical trials etc.

	- Proposals, - Clinical Outcomes, - Clinical trials, 8.2 Outline and explain the steps involved in drafting and writing research outcomes: - Title of report - Introduction/ background: definition of terms and concepts, purpose /objectives, research questions / hypotheses - Writing the body: literature review, build essay around the focus of study or report, explanations, summaries, analysis, use of tables, chart, diagrams e.t.c. - Writing conclusion; summarize argument, draw conclusions, make recommendations, - Revising the final drafts: observe sequence of ideas, use transition, check punctuations, spellings and follow rules of grammar etc. - Documentation: citation of all materials used,		Internet resources, Statistical tables, Calculators and Laptop computers	To outline and explain steps involved in drafting and writing research outcomes and their uses	research reports, clinical trials etc. Guide the students to outline and explain steps involved in drafting and writing research outcomes and their uses	Outline and explain steps involved in drafting and writing research outcomes and their uses

	accuracy of all works cited. - Typesetting, finishing and binding: print document and bind in relation to use and keep personal copy for back-up. 8.3 State uses of research findings, reports, proposals, clinical outcomes, and clinical trials in Health Information Management.					
General Objective 9.0: Apply knowledge and skills in research communication in Health Information Management						
14	9.1 Explain published reports, findings and outcomes in Health Information Management. 9.2 Identify organizations and agencies that are involved in Communicating research findings: - LGA Health Department - State Ministry of Health - Federal Ministry of Health - NAFDAC - HMOs - NPHCDA - NACA - USAID - WHO - UNICEF	Explain 9.1 to 9.3	Textbooks, Journals, White board/ markers, Internet resources and Laptop computers	To explain organizations and agencies that are involved in Communicating research findings To outline uses of research Communication in Health Information Management	Guide the students to explain organizations and agencies that are involved in Communicating research findings Guide the students to outline uses of research Communication in Health Information Management and their uses	Explain organizations and agencies that are involved in Communicating research findings Outline uses of research Communication in Health Information

	- UNESCO - Medical and Health NGOs etc. 9.3 State uses of research Communication in Health Information Management					

HIS 326: DESIGN AND ANALYSIS OF EXPERIMENT

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: BIOMETRICS			
CODE: STA 325			
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 3			
GOAL: This course is designed to enable students acquire knowledge in Hospital Statistics			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand basic concepts of cells in biology. 2.0 Understand the basis for the inheritance theory. 3.0 Understand population genetics. 4.0 Understand basic distributions in biological models. 5.0 Understand the basic assay methods. 6.0 Understand the transformation needed in bio-medical responses. 7.0 Understand the estimations and uses of potency of substances. 8.0 Understand other biometric distributions and their uses.			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: Biometrics			**Course STA Code 325**		**Contact Hours:** 45 Hours	
COURSE SPECIFICATION: Theoretical Content: 2				Practical Content: 1		
General Objective: 1.0 Understand basic concepts of cells in biology						
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Classify micro organisms 1.2 Describe the living cell 1.3 Describe cell division 1.4 Explain cellular basics for reproduction, mitosis and meiosis	Explain 1.1 to 1.4	Textbooks, Charts and Forms, Reading materials	Explain 1.1 to 1.4		Explain cellular basics for reproduction
General Objective 2:0 Understand the basis for the inheritance theory						
2-3	2.1 State the mendelian theory and ratios 2.2 Explain and interpret the mendelian theory 2.3 Explain the dominance theory 2.4 Explain linkage	Explain 2.1 to 2.4	Textbooks, Charts and Forms, Reading materials.	Explain 2.1 to 2.4		Explain the dominance theory
General Objective: 3.0 Understand population genetics						
	3.1 Explain gene frequency 3.2 Explain population changes in terms of gene frequency 3.3 Estimate population theory in terms of gene frequency 3.4 Define genotypes and phenotypes 3.5 Distinguish between genotypes and phenotypes	Explain 3.1 to 3.5	Textbooks, Charts and Forms, Reading materials.	Explain 3.1 to 3.5	Guide students to Estimate population theory in terms of gene frequency	Explain population changes in terms of gene frequency

General Objective 4:0 Understand basic distribution in biological models						
6-7	4.1 Explain the need for the binomial distribution in biological problems 4.2 Explain the need for the poisson distribution in biological problems 4.3 Apply the distribution in 4.1 and 4.2 above to solving problems	Explain 4.1 to 4.3	Textbooks, Charts and Forms, Reading materials.	Explain 4.1 to 4.3	Guide students to apply the poisson distribution to solve problems	Explain the binomial distribution
General Objective 5.0: Understand the basic assay methods						
8-9	5.1 Define bio-assay 5.2 Define quantal responses 5.3 Explain the uses of bio-assay and quantal responses 5.4 Define parallel line assays 5.5 Define slope ratio assays 5.6 Explain the uses and the method of assays in 5.4 above in solving problems 5.7 Apply the assay methods to solve problems	Explain 5.1 to 5.6	Textbooks, Charts and Forms, Reading materials.	Explain 5.1 to 5.6	Guide students to apply assay methods to solve problems	Explain parallel line assays
General Objective 6: 0 Understand the transformation needed in bio-medical responses						
	6.1 Define probit transformation 6.2 Define logit transformation 6.3 Define angular transformation 6.4 Explain the needs and uses of the transformations in 6.1, 6.2 and 6.3 above 6.5 Apply the transformation to solve problems	Explain 6.1 to 6.4	Textbooks, Charts and Forms, Reading materials.	Explain 6.1 to 6.4	Guide students to apply transformation to solve problems	Explain logit transformation

General Objective 7:0 Understand the estimations and uses of potency of substances						
12-13	7.1 Describe the methods of estimation of ED_{50} 7.2 Describe the methods of estimation of LD_{50} 7.3 Compare ED_{50} and LD_{50} 7.4 Explain the uses of LD_{50} and ED_{50} in solving problems 7.5 Explain the fiducial limits for ratios	Explain 7.1 to 7.5	Textbooks, Charts and Forms, Reading materials.	Explain the terms in 7.1 to 7.5	Guide students to compare ED_{50} and LD_{50}	Explain LD_{50} and ED_{50}
General Objective 8.0: Understand other biometric distribution and their uses						
14-15	8.1 Define and explain the uses of the distributions: logarithmic, log-normal, poisson, negative binomial, exponential and χ^2 8.2 Explain the uses of poisson processes and growth curves in biometrics	Explain 8.1 to 8.2	Textbooks, Charts and Forms, Reading materials.	Explain 8.1 to 8.2	Guide students to uses poisson processes and growth curves in biometrics	Explain the uses of poisson processes and growth curves in biometrics

STA 425: Time Series

GNS 322: Population Resources and Environment

GNS 411: Intro to Psychology

YEAR II SEMESTER I

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA			
COURSE: PROPOSAL WRITING			
CODE: HIM 411			
DURATION (Hours/Week) **Lecture: 1hr**	**Tutorial: 0**	**Practical: - 1**	**Total: 2 (30hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable students to acquire knowledge and skills of research proposal writing.			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the contents of research proposal 2.0 Know the introductory parts of the proposal 3.0 Know the essential aspects of literature review 4.0 Understand the essential aspects of proposal methodology 5.0 Know types of referencing 6.0 Understand work plan for the proposed activities 7.0 Understand executive summary of a proposal or abstract			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: PROPOSAL WRITING			**Course Code:** HIM 411	**Contact Hours:** 30 Hours		
COURSE SPECIFICATION: Theoretical Content: 1			Practical Content: 1			
General Objective: 1.0: Understand the content of research proposal						
week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
1.	1.1 Define research 1.2 Define proposal 1.3 List the types of a research proposals 1.4 List the contents of a research proposal 1.5 State the importance of writing a good proposal	Explains 1.1 to 1.5	-White board/ marker - Textbooks -journals -Sample of research or general proposal	Construct a simple a cycle showing the contents of a research proposal using chart or diagram	Guide Students to use chart or diagram for proposal writing	List the types of a research proposals Tate the importance of writing a good proposal Construct a simple a cycle showing the contents of a research proposal using chart or diagram List the contents of a research proposal
General Objective: 2.0: Know the introductory parts of the proposal						
	2.1 Outline the contents of the introductory section of the proposal	Explains 2.1 to 2.4	-White board/ marker - Textbooks -journals -Sample of research	Write a template covering 2.1 to 2.4	Guide Students to perform the task in the areas covered.	Explain the statement of problems of a research

	2.2 Explain the statement of problems a research proposal 2.3 Describe the justifications for a research proposal 2.4 Outline how to write general and specific objectives of a research proposal		or general proposal			proposal Describe the justifications for a research proposal
General Objective:		3.0: Know the essential aspects of literature review				
	3.1Define literature review 3.2Outline the steps in writing literature review 3.3Explain the importance of literature review in proposal writing	Explain 3.1 to 3.3	White board/ marker - Textbooks -journals -Sample of research or general proposal	Review relevant literature on a given proposal	Supervise the students in carrying out the activity in 3.4	Outline the steps in writing literature review Review relevant literature on a given proposal
General Objective:		4.0: Understand the essential aspects of proposal methodology				
	4.1 Outline the contents of methodology in research 4.2 Describe the background to a given study population 4.3 Describe the various types of sampling techniques	Explains 4.1 to 4.5	-White board/ marker - Textbooks -journals -Sample of research or general proposal	Use the appropriate data collection methods for a given proposal.	Assist or guide students in selection of appropriate sampling/data collection methods	Outline the contents of methodology in research. Describe the background to a given study population. Select the appropriate

	4.4 Describe the various method data collection in research 4.5 Explain the proposed methods of data analysis and presentation					sampling technique for a given study population in a proposal
General Objective:		5.0: Know types of referencing styles				
	5.1 Define referencing 5.2 Describe the different types of referencing styles 5.3 Identify the different types of referencing styles in given research or general proposal	Explain 5.1 to 5.3	White board/ marker - Textbooks -journals -Sample of research or general proposal -White board/ marker - Textbooks -journals -Sample of research or	Write some references using the types of referencing styles Identify the different types of referencing styles in given research or general proposals		Identify the different types of referencing styles in given research or general proposals.
General Objective:		6: Understand work plan for proposed activities.				
	6.1 Describe the component of a good plan 6.2 Describe a analysis for a proposed activities 6.3 Describe Gantt's	Explain a sample of a good proposal	White board/ marker - Textbooks -journals -Sample of research or general proposal	Design work plan chats using Gantt's or its equivalent method. Write a	Guide Students in writing a simple cost analysis and designing a work plan	Describe the component of a good plan Design work plan chats using Gantt's or its

	methods of writing work plan			simple cost analysis for proposed activities in the plan		equivalent method.
General Objective:		7.0: Understand executive summary of a proposal or abstract of a proposal/paper				
	7.1 Define an abstract or executive summary 7.2 Describe the components of an abstract/executive summary	Sample a good proposal	-White board/ marker - Textbooks -journals -Sample of research or general proposal.	Write an abstract or executive summary for a given proposal	Guide students to perform the task in 7.3 Explains health care abuse and discuss certain preventive measures against health care fraud and abuse.	Define an abstract or executive summary Write an abstract or executive summary for a given proposal Explain certain preventive measures against fraud and abuse

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	SEMINAR		
CODE:	HIM 423		
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 2 (30hrs/semester)**
UNITS:	**1**		
GOAL:	This course is designed to enable the student acquire knowledge of how to carry out a research to prepare and present seminar on the research work		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know how to select a health information management based topic for research			
2.0 Decide, with the help of a lecturer, an investigation in that area			
3.0 Carry out a literature review of the topic, paying particular attention to the area selected for investigation			
4.0 Prepare a seminar on the proposed investigation			
5.0 Present the seminar and defend the proposed investigation when questions are asked by the participants in the Seminar			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	SEMINAR			**Course Code: HIM 423**	**Contact Hours: 30 Hours**	
COURSE SPECIFICATION:	**Theoretical Content: 1**			**Practical Content: 1**		
General Objective 1.0:	Know how to select a health information management based topic for research					
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Explain the process of conducting a research seminar 1.2 Explain the characteristics of a good research seminar 1.3 List the different components of a research/ seminar work 1.4 List the factors considered in selecting a seminar /research problems	Explain 1.1 to 1.4	Textbooks, Journals, White board/ markers, Internet resources, Ms PowerPoint slides, CD-ROM and Multimedia Projector	To explain the process, components, characteristics and factors necessary for a good research seminar	Guide the students to explain the process, components, characteristics and factors necessary for a good research seminar	Explain the process, components, characteristics and factors necessary for a good research seminar
General Objective 2.0: Decide, with the help of a lecturer, an investigation in that area						
2	2.1 Explain how to read relevant books and papers 2.2 Explain how to make relevant notes 2.3 Explain how the proposed investigation complements the existing literature	Explain 2.1 to 2.3	Textbooks, Journals, White board/ markers, Internet resources, Ms PowerPoint	To explain how to read relevant books and papers, make relevant notes and how the proposed investigation complements the existing literature	Guide the students to explain how to read relevant books and papers, make relevant notes and how the proposed	Explain how to read relevant books and papers, Explain how to make relevant notes

			slides, CD-ROM and Multimedia Projector		investigation complements the existing literature	Explain how the proposed investigation complements the existing literature
General Objective 3.0: Prepare a seminar on the proposed investigation						
3-5	3.1 Identify a relevant researchable topic 3.2 Conduct literature search for relevant materials 3.3 Conduct literature review on the proposed topic 3.4 Develop a PowerPoint presentation on the topic	Explain 3.1 to 3.5	Textbooks, Journals, White board/ markers, Internet resources, Ms PowerPoint slides, CD-ROM and Multimedia Projector	To identify a relevant researchable topic, conduct literature search, conduct literature review and develop a PowerPoint presentation	Guide the students to identify a relevant researchable topic, conduct literature search, conduct literature review and develop a PowerPoint presentation	Identify a relevant researchable topic Conduct literature search for relevant materials Conduct literature review on the proposed topic Develop a PowerPoint presentation on the topic
General Objective 4.0: Carry out a literature review of the topic, paying particular attention to the area selected for investigation						
6	4.1 Define goal for communicating the prepared presentation 4.2 Define target audience	Explain 4.1 to 4.5	Textbooks, Journals, White board/ markers,	To define goal for communicating the prepared presentation	Guide the students to define goal for communicating	define goal for communicating the prepared presentation

	4.3 Choose communication method/route 4.4 Use good communication principles 4.5 Have clear take-home message		Internet resources, Ms PowerPoint slides, CD-ROM and Multimedia Projector	To define target audience To choose communication method/route To use good communication principles To have clear take-home message	the prepared presentation Guide the students to define target audience Guide the students to choose the right communication method/route Guide the students to use good communication principles Guide the students to have clear take-home message	Define target audience Choose the right communication method/route Use good communication principles Have clear take-home message

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	DATABASE MANAGEMENT SYSTEMS		
CODE:	**HIS 412**		
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS:	**3**		
GOAL:	This course is designed to enable students understand the principles and Application of Database Design and Management		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		

1.0 Know the structure of Database Management System.
2.0 Know Database Models.
3.0 Know key terms required to understand and use electronic Database.
4.0 Understand issues required for Database implementation.
5.0 Know the procedure for designing a simple Database.
6.0 Understand Database Manipulations.
7.0 Know the meaning and functions of Query Language.
8.0 Know the levels of Abstracting in Database Management System.
9.0 Know the Structure, format and functions of National Health Management Information Systems (NHMIS) and District Health Information System (DHIS)
10.0 Understand the concept of Data Organization.

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: DATABASE MANAGEMENT SYSTEMS			**Course Code:** **HIS 412**		**Contact Hours:** **45 Hours**	
COURSE SPECIFICATION: **Theoretical Content: 1**				**Practical Content: 1**		
General Objective 1.0: Know the structure of Database Management System.						
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Explain the following: - Relations, - Domain, - Field - Attribute. 1.2 Describe Database structure in terms of : - Interfile relationships - multiple views of database - multiple files 1.3 Explain Normalization 1.4 Describe relational operations: - Join (Left Join, Inner - Join, Outer Join) and - Protection	Explain 1.1 to 1.4	Textbooks, Journals, White board/ markers, Internet resources, CD-ROM and Multimedia Projector	To explain Relations, Domain, Field, Attribute and Normalization To describe Database structure and relational operations	Guide the students to explain Relations, Domain, Field, Attribute and Normalization Guide the students to describe Database structure and relational operations	Explain Relations, Domain, Field, Attribute and Normalization Describe Database structure and relational operations
General Objective 2.0: Know Database Models.						
2	2.1 Explain Database Models 2.2 State the different types of Data Models:	Explain 2.1 and 2.2	Textbooks, Journals, White board/ markers and	To explain Database Models To State the	Guide the students to explain Database Models	Explain Database Models State the different types of Data Models

	- Object-based Logical Model :(entity-relationship, object-oriented, semantic and functional models) - Record-based Logical Model (relational model, SQL, network and hierarchical models)		Internet resources	different types of Data Models	Guide the students to State the different types of Data Models	
General Objective 3.0: Know key terms required to understand and use electronic Database.						
3	3.1 Explain the followings: - Table - Form - Report - Query 3.2 Define the following: - Data Normalization - Replication - Layout 3.3 Explain client-server application in DBMS. 3.4 Review issues on Backup and recovery system.	Explain 3.1 and 3.2	Textbooks, Journals, White board/ markers and Internet resources	To explain Table, Form, Report, Query and client-server application in DBMS To define Data Normalization, Replication and Layout To review issues on backup and recovery system	Guide the students to explain Table, Form, Report, Query and client-server application in DBMS, Data Normalization, Replication and Layout Guide the students to review issues on backup and recovery system	Explain Table, Form, Report, Query and client-server application in DBMS etc. Guide the students to review issues on backup and recovery system
General Object 4.0: Understand issues required for Database implementation						
4	4.1 Explain the following: - Naming of data - Element - Information hiding	Explain 4.1 and 4.4	Textbooks, Journals, White board/	To explain Naming of data element, Information hiding Single and multiple	Guide the students to explain Naming of data element,	Explain Naming of data element, Information hiding

	- Single and multiple application of database. 4.2 Describe database security and control. 4.3 Explain the concepts of: - Primary Key - Secondary Key - Foreign Key 4.4 Explain Data Salvage.		markers and Internet resources	application of database To explain the concepts of Primary Key Secondary Key and Foreign Key To apply primary key in DBMS	Information hiding Single and multiple application of database Guide the students to explain the concepts of Primary Key Secondary Key and Foreign Key To apply primary key in DBMS	Single and multiple application of database Explain the concepts of Primary Key Secondary Key and Foreign Key Apply primary key in DBMS
General Object 5.0: Know the procedure for designing a simple Database						
5-6	5.1 Describe the steps in designing a simple database: - Requirement Analysis. - Conceptual database design - Logical database design - Schema refinement - Physical database design - Security control	Explain 5.1	Textbooks, Journals, White board/ markers and Internet resources	To describe steps in designing a simple database To develop a simple database using Ms Access	Guide the students to describe steps in designing a simple database Guide the students to develop a simple database using Ms Access	Describe steps in designing a simple database Develop a simple database using Ms Access
General Objective 6.0: Understand Database Manipulations						

7	6.1 Explain Database Manipulation. 6.2 Explain the concept of: - Trigger - Stored procedure - Views 6.3 Describe the functions of a database Administrator(DBA)	Explain 6.1 to 6.3	Textbooks, Journals, White board/ markers and Internet resources	To Explain Database Manipulation , concept of Trigger, Stored procedure, Views To describe the functions of a database Administrator	Guide the students to Explain Database Manipulation , concept of Trigger, Stored procedure, Views Guide the students to describe the functions of a database Administrator	Explain Database Manipulation , concept of Trigger, Stored procedure, Views Describe the functions of a database Administrator
General Objective 7.0: Know the meaning and functions of Query Language						
8	7.1 Define Query Language 7.2 Give examples of Query Language: e.g. QBE, SQL 7.3 Describe the functions and capabilities of a Query Language.	Explain 7.1 to 7.3	Textbooks, Journals, White board/ markers and Internet resources	To define Query Language with typical example and functions To apply SQL on DBMS to Insert, Retrieve, Update and Delete	Guide the students to define Query Language with typical example and functions Guide the students to apply SQL on DBMS to Insert, Retrieve, Update and Delete	Define Query Language with typical example and functions To apply SQL on DBMS to Insert, Retrieve, Update and Delete
General Objective 8.0: Know the levels of Abstracting in Database Management System						
9	8.1 Explain levels of	Explain 8.1 to	Textbooks,	To explain levels of	Guide the	Explain levels of

	Abstracting in Database Management System: - Physical level - Logical level - View level 8.2 Explain Instances and Schemas. 8.3 Define Data Independence 8.4 Explain: - Physical data independence - Logical data independence	8.3	Journals, White board/ markers and Internet resources	abstracting in DBMS To explain instances, schemas, logical data independence etc. To illustrate Schemas with diagram	students to explain levels of abstracting in DBMS Guide the students to explain instances, schemas, logical data independence etc. Guide the students to illustrate Schemas with diagram	abstracting in DBMS, instances, schemas, logical data independence etc. Guide the students to illustrate Schemas with diagram
General Objective 9.0: Know the Structure, format and functions of National Health Management Information Systems (NHMIS) and District Health Information System (DHIS)						
	9.1 Explain the National Health Information System Policy. 9.2 Explain the architecture of the National Health information System (NHIS). 9.3 State the Uses of National Health Management Information System (NHMIS).	Explain 9.1 to 9.5	Textbooks, Journals, White board/ markers and Internet resources	To explain NHMIS Policy, architecture and uses To explain data flow process in NHMIS and Distinct Health Information Systems Demonstrate how HMIS data are	Guide the students to explain NHMIS Policy, architecture and uses Guide the students to explain data flow process in NHMIS and Distinct Health	Explain NHMIS Policy, architecture and uses Explain data flow process in NHMIS and Distinct Health Information Systems (DHIS)

	9.4 Explain the process of Data flow in the National Health Management Information System (NHMIS). 9.5 Explain the meaning and Use of District Health Information System (DHIS).			captured in DHIS-2	Information Systems (DHIS)	
General Objective 10.0: Understand the concept of Data Organization						
	10.1 Explain the following: - Data Modeling - Data Bank - Data Warehouse - Data Mining - Data Dredging or - Data Fishing - Disaster Recovery 10.2 Explain Data Organization through: - Serial - Sequential - Random /Direct - Index Sequential 10.3 Enumerate and explain Data Storage Media	Explain 10.1 to 10.3	Textbooks, Journals, White board/ markers and Internet resources	To explain Data Modeling, Data Bank, Data Warehouse, Data Mining, Data Dredging or Data Fishing Disaster Recovery To explain data organization To describe data storage media	Guide the students to explain Data Modeling, Data Bank, Data Warehouse, Data Mining, Data Dredging or Data Fishing Disaster Recovery Guide the students to explain data organization and data storage media	Explain Data Modeling, Data Bank, Data Warehouse, Data Mining, Data Dredging or Data Fishing Disaster Recovery Explain data organization and data storage media

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	OCCUPATIONAL HEALTH AND SAFETY II		
CODE:	HIS 413		
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 0**	**Total: 2 (30hrs/semester)**
UNITS:	2		
GOAL:	This course is designed to enable the students identify, evaluate and control occupational hazards/diseases in the working Environment.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know the broad components of occupational health 2.0 Know various hazards in the occupational environment 3.0 Know common occupational diseases and their prevention 4.0 Know appropriate hazard control measures in the working environment 5.0 Understand the principles of industrial ventilation 6.0 Understand the identification and control of specific physical hazards in occupational environment 7.0 Understand how to carry out a walk-through inspection of an industry			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE:	Occupational Health and Safety II		**Course Code:** HIS 413	**Contact Hours:** 30		
COURSE SPECIFICATION:	Theoretical Content: 2		Practical Content: 0			
General Objective:	1.0: Know the broad components of occupational health					
Weeks	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
	1.1 Explain specific components of occupational health viz. a. Occupational medicine: - Medical examination (pre-employment pre-placement and periodic). - Curative – treatment of occupational and non-occupational ailments - Preventive Health Services - Provision of family health services - Promotive occupational health programmes b. Industrial hygiene and safety services : - sampling of raw materials for toxicity and extrapolation. - Engineering control of	Explain 1.1 – 1.4	Textbooks, internet facilities, White board/ marker, flip charts, training module			Explain specific components of occupational health. Explain occupational medicine. Explain Industrial hygiene and safety service. Explain Industrial welfare service.

	plants - Storage of radioactive and industrial toxic substances - Evaluation of actual/potential hazards in the work environment. c. Industrial welfare services - Provision of subsidized cafeteria services. - Provision of free accommodation/housing and/or an owner occupier basis. - Provision of employee recreational facilities - Provision of life and health insurance schemes. 1.2 rovision of transportational facilities 1.3 Shift duty allowances 1.4 Provision of educational facilities to children employees.					Explain Shift duty allowances
General Objective: 2.0: Know various hazards in the occupational environment						
	2.1 Define occupational hazards	Explain 2.1 – 2.6	Textbooks, internet			Define occupational

	2.2 Classify occupational hazards under the following: - Physical - Chemical - Biological - Psychological - Mechanical 2.3 Explain the classified hazards in 2.2 above with examples. 2.4 Explain the use of various devices for sampling and measuring potential and actual industrial hazards. 2.5 Measure potential and actual industrial hazards using the various devices in 2.4 above. 2.6 List and explain the threshold limit values (TLV) of selected physical and chemical substances.		facilities, White board/ marker, flip charts, training module			hazards Discuss the classification of occupational hazards. Explain the use of various devices for sampling and measuring potential and actual industrial hazards. List and explain the threshold limit values (TLV) of selected physical and chemical substances.
General Objective:3.0: Know common occupational diseases and their prevention						
	3.1 List and classify common occupational	Explain 3.1 – 3.2	Textbooks, internet			List and classify common

	diseases e.g. - Occupational lung diseases , - Occupational dermatitis, - Occupational injuries and accidents, - Occupational cancer. 3.2 Explain the types, cansas, routes of entry, clinical presentation, and control/preventive measures of occupational diseases in 3.1 above		facilities, White board/ marker, flip charts, training module			occupational diseases. Explain the types, cansas, routes of entry, clinical presentation, and control/preventive measures of occupational diseases
General Objective: 4.0: Know appropriate hazard control measures in the working environment						
	4.1 Classify and explain the various types of hazard control measures viz. - working environment - Engineering - Administrative - PPEs - Substitution etc 4.2 Describe the different types of PPEs. 4.3 Explain the importance of personal protective equipment in the working environment.	Explain 4.1 – 4.3	Textbooks,internet facilities, White board/ marker, flip charts, training module			Classify and explain the various types of hazard control measures. Describe the different types of PPEs. Explain the importance of PPEs in the working environment.

General Objective:5.0: Understand the principles of industrial ventilation						
	5.1 Define Industrial Ventilation. 5.2 Describe the general dilution and local exhaust ventilation system. 5.3 Describe basic principles of industrial ventilations in the control of industrial contaminants.	Explain 5.1 – 5.3	Textbooks, internet facilities, White board/ marker, flip charts, training module			Define Industrial Ventilation. Describe the general dilution and local exhaust ventilation system.
General Objective:6.0: Understand the identification and control of specific physical hazards in occupational environment						
	6.1 Describe the properties, causes, effects, measurement and control of industrial Noise. 6.2 Describe tile types, measurement. effects and control of industrial ionizing and non-ionizing irradiation.	Explain 6.1 – 6.2	Textbooks, internet facilities, White board/ marker, flip charts, training module			Describe the properties, causes, effects, measurement and control of industrial Noise.
General Objective:7.0: Understand how to carry out a walk-through inspection of an industry.						
	7.1 Describe the layout of an industry. 7.2 Describe the process of inspection in an industry. 7.3 Carryout walk-through inspection of different types and cadres of industry viz: small, medium and large scale industries.	Explain 7.1 – 7.4	Textbooks, internet facilities, White board/ marker, flip charts, training module			Describe the layout of an industry. Describe the process of inspection in an industry. Explain how carryout walk-

	7.4 Present a report of factory inspection					through inspection of different types and cadres of industry.

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	HUMAN ANATOMY AND PHYSIOLOGY IV (NERVOUS AND REPRODUCTIVE SYSTEM)		
CODE:	HIS 414		
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS:	3		
GOAL:	This course is designed to enable the student to understand Anatomy and Physiology of the Nervous and Reproductive Systems.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know the anatomy and physiology of the nervous system. 2.0 Know the anatomy and physiology of the reproductive system			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: Human Anatomy and Physiology IV (Nervous and Reproductive System)			**Course Code:** HIS 414		**Contact Hours:** 45	
COURSE SPECIFICATION:	Theoretical Content: 2		Practical Content: 1			
General Objective: 1.0: Know the anatomy and physiology of the nervous system.						
Week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcomes**	**Teachers Activities**	**Evaluation**
	1.1 Describe structure and functions of the Nervous System: - The brain - Nuclei of cranial nerves - Spinal column	Explain 1.1 – 1.6.	Models of preserved specimen, Textbooks, audio visuals aids, reading materials.	Draw and label the structure of human nervous system from a model.	Guide students to draw and label the structure of human nervous system from a model.	Describe structure and functions of the Nervous System
	1.2 Explain the general structures of the central and peripheral Nervous systems e.g. - Spinal nerves - peripheral nerve fibres			Draw and label the human eye.	Guide students to draw and label the human eye.	Draw and label the human eye
	1.3 Describe the anatomy of the neuron.			Draw and label the human skin.	Guide students to draw and label the human skin.	Describe the anatomy of the neuron.
	1.4 Explain reflex action.					
	1.5 Describe the organs of the special senses e.g - Eye - Ear					Describe the sensory systems of the thalamus

	- Skin 1.6 Describe the sensory systems of the thalamus and cortex e.g. - Auditory system - Olfactory system - Sensory system - Motor and perimeter areas of the cortex - Describe the anatomy of the neuron and reflex action.					and cortex. Describe the anatomy of the neuron and reflex action.
General Objective: 2.0: Know the anatomy and physiology of the reproductive system						
	2.1 Describe the reproductive and hormonal structures of the male organ. 2.2 Identify abnormalities of male sexual organ function, prostate gland, spermatogenesis and male fertility. 2.3 Describe testicular tumors and hypergonadian in male.	Explain 2.1 – 2.9	Models of preserved specimen, Textbooks audio visuals aids, reading materials.	Draw and label male reproductive organ	Guide students to draw and label male reproductive organ	Describe the reproductive and hormonal structures of the male organ. Describe the anatomy and physiology of the female reproductive system.

	2.4 Describe the process of release of spermatozoa by the male. 2.5 Describe the female physiology before pregnancy. 2.6 Describe the following anatomy:- - The female reproductive system - Female hormonal system - Maturation of the ovum - Fertilization, transportation and implantation of the Ovum - Monthly ovarian cycle. 2.7 Outline the functions of the following:- - Ovaries - Oestrogen - Progesterone in Puberty, menarche and in menopause					Describe the process of release of spermatozoa by the male. Describe the female hormonal system. Outline the functions of ovaries. Explain hormonal factors in pregnancy. Explain genetical factors in

	- Gonadotrophic hormone 2.8 Explain hormonal factors in the following: - Pregnancy - Labour - Lactation 2.9 Explain genetical factors in the following: - Congenital malformations - Sex-linked genes mutations - Hereditary and mechanism of hereditary - Concepts of dominant and recessive genes - Darwinian concepts - Mendelian laws					hereditary

EED 413 ENTREPRENEURSHIP EDUCATION

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: DEMOGRAPHY II			
CODE: STA 422			
DURATION (Hours/Week) **Lecture: 1hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 2			
GOAL: This course is designed to enable students acquire knowledge in Hospital Statistics			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the methods of evaluating demographic data. 2.0 Understand the methods of adjusting demographic data. 3.0 Understand the basic measures of fertility. 4.0 Understand the basic measures of mortality. 5.0 Understand life tables and their construction. 6.0 Understand reproductivity. 7.0 Understand the basic measures of migration. 8.0 Understand population estimates and projection 9.0 Understand methods of estimating demographic measures from incomplete data.			

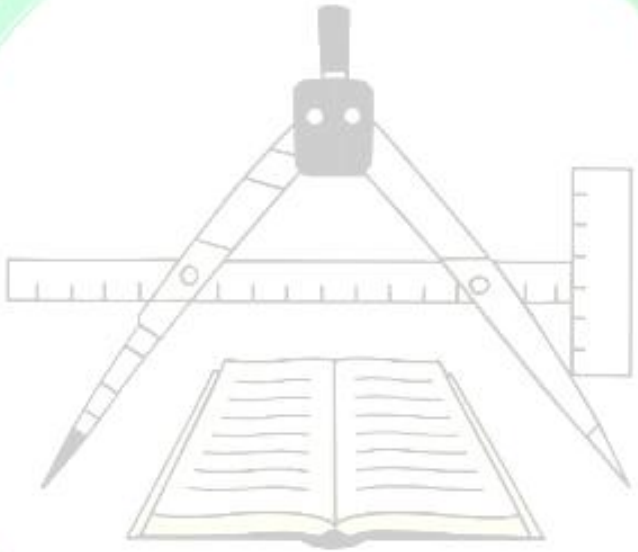
PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE: Demography			**Course STA Code 422**		**Contact Hours:** 45 Hours	
COURSE SPECIFICATION:	Theoretical Content: 1			Practical Content: 1		
General Objective:	1.0 1. Understand the methods of evaluating demographic data.					
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Compute and interpret Whipple's index of digit preference 1.2 Compute and interpret Meyer's blended index of digit preference 1.3 Evaluate demographic data using the age-ratio method 1.4 Evaluate demographic data using the sex-ratio method 1.5 Compute and interpret the age-sex accuracy index	Explain 1.1 to 1.5	Textbooks Lecture Notes Life data calculators	Explain 1.1 to 1.5	Guide students to compute and interpret the age-sex accuracy index	interpret the age-sex accuracy index
General Objective 2:0 Understand the methods of adjusting demographic data						
2	2.1 Adjust age data using the Carrier-Farraq ratio method 2.2 Adjust age-sex data using Newton's quadratic method	Explain 2.1 to 2.2	Textbooks Lecture Notes Life data	Explain 2.1 to 2.2	Guide students to adjust age data using the Carrier-Farraqratio method	Explain Newton's quadratic method

General Objective: 3.0 Understand the basic method of fertility						
3-4	3.1 Compute and interpret crude birth rate, general fertility rate and child-woman ratio 3.2 State the advantages and disadvantages of measures in 3.1 3.3 Compute and interpret age-specific fertility rate and mean age at birth 3.4 Relate the measures in 3.3 above to the age pattern of fertility 3.5 Explain fertility trends and differentials	Explain 3.1 to 3.5	Textbooks Lecture Notes Life data calculators	Explain 3.1 to 3.5	Guide students to compute and interpret age-specific fertility rate and mean age at birth	Explain fertility trends and differentials
General Objective 4:0 Understand the basic measures of mortality						
5-6	4.1 Explain cause-of-death surveys 4.2 Compute and interpret crude death rate and rate by age and sex 4.3 Compute and interpret infant mortality rate, neo-natal mortality rate, post neo-natal mortality rate and maternal mortality rate 4.4 State the advantages and disadvantages of rates met in 4.2 and 4.3	Explain 4.1 to 4.5	Textbooks Lecture Notes Life data calculators	Explain 4.1 to 4.5	Guide students to compute and interpret infant mortality rates	State the advantages and disadvantages of rates

	4.5 Explain mortality differentials, trends and concept of demographic transition					
General Objective 5.0: Understand life tables and their construction						
7-8	5.1 Construct life tables using Reed-Merrel and CoaleDmeny methods 5.2 Interpret the various life table functions 5.3 Compute and interpret life table survival ratios 5.4 Explain the use of model life tables for demographic estimation and projection	Explain 5.1 to 5.4	Textbooks Lecture Notes Life data	Explain 5.1 to 5.4	Guide students to compute and interpret life table	Explain the use of model life tables
General Objective 6: 0 Understand reproductivity						
9	6.1 Compute and interpret gross reproduction rate and net reproduction rate 6.2 Compute and interpret a replacement index.	Explain 6.1 to 6.2	Textbooks Lecture Notes Life data calculators	Explain 6.1 to 6.2	Guide students to compute and interpret a replacement index	Explain the principal theories of inference
General Objective 7:0 Understand the basic measures of migration						
10-11	7.1 Define the concepts of immigration and emigration 7.2 Distinguish between immigration and emigration 7.3 Compute and interpret immigration rate, emigration rate, gross	Explain 7.1 to 7.5	Textbooks Lecture Notes Life data calculators	Explain the terms in 7.1 to 7.5	Guide students to estimate net migration using the intercensal component method	Explain the concepts of immigration and emigration

	migration rate and net gross migration 7.4 Estimate net migration using the intercensal component method 7.5 Estimate net migration using the intercensal cohort-component method					
General Objective 8.0: Understand population estimates and projections						
12-13	8.1 Compute and interpret arithmetic, geometric and exponential growth rates 8.2 Project total population using the rates in 8.1 8.3 Explain population growth models such as quadratic, exponential, modified exponential, Gompertz, logistic etc. 8.4 Fit the models in 8.3 to population figures and make estimates 8.5 Explain population growth estimation surveys	Explain 8.1 to 8.5	Textbooks Lecture Notes Life data. calculators	Explain 8.1 to 8.5	Guide students to project total population using the rates	Explain population growth estimation surveys
General Objective 9.0: Understand methods of estimating demographic measures from incomplete data						
14-15	9.1 Estimate crude birth rate using the reverse survival method 9.2 Estimate crude death rate using the forward survival method 9.3 Estimate fertility by the Brass P1/P2 method	Explain 9.1 to 9.5	Textbooks Lecture Notes Life data calculators	Explain 9.1 to 9.5	Guide students estimate child mortality by the Brass P1/P2 method	

	9.4 Estimate child mortality by the Brass P1/P2 method 9.5 Explain the use of prospective and retrospective surveys in demographic estimation					



YEAR II SEMESTER II

PROGRAMME:	HEALTH INFORMATION MANAGEMENT(HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	ELECTRONIC HEALTH RECORDS		
CODE:	HIM 421		
DURATION (Hours/Week) **Lecture: 1hr**	**Tutorial: 0**	**Practical: 2**	**Total: 3 (45hrs/semester)**
UNITS:	2		
GOAL:	This course is designed to enable students with the knowledge and skills of the usage of electronic health records.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know emerging trends in Electronic Health Records 2.0 Understand the processes of adopting an Electronic Health Records 3.0 Understand the processes of implementing an electronic Health Records 4.0 Know how to apply Electronic Health Records in the various components of a health system			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE:	ELECTRONIC HEALTH RECORDS		**Course Code:** HIM 421		**Contact Hours:** 45 Hours	
COURSE SPECIFICATION:	Theoretical Content: 1		Practical Content: 2			
General Objective:	1.0: Know emerging trends in Electronic Health Records					
week	**Specific Learning Outcomes**	**Teachers Activities**	**Learning Resources**	**Specific Learning Objectives**	**Teachers Activities**	**Evaluation**
	1.1. Explain the following concepts: -Electronic Medical Records -Electronic Health Records -mHealth -Infobuttons -Hypertext -Hypermedia -Translational research -Imaging -Personal Health Records 1.2. Differentiate between Electronic Health Medical Records and Electronic Health Records	Explains 1.1 to 1.2	Textbooks, Charts Reading materials, Internet eBooks Computer sets Projector		Guide students to understand the concepts in 1.1 to 1.2	Explain the following concepts: -Electronic Medical Records -Electronic Health Records -mHealth -Infobuttons -Hypertext -Hypermedia -Translational research -Imaging -Personal Health Records Differentiate between Electronic Health Medical Records and Electronic Health Records

General Objective:		2.0: Understand the processes of adopting an Electronic Health Records				
	2.1. Explain the term Access meaningful readiness **2.2** Explain Ethical and Legal issues to be considered when adopting an Electronic Health Records 2.3 Explain how to determine the cost-benefit and Return On Investment (ROI) of an Electronic Health Records 2.4 Explain how to select vendor partners 2.5 Explain how to carry out a market survey for an Electronic Health Records 2.6 Explain how to compare the different Electronic Health Records. 2.7 Explain the different platforms through which Electronic Health Records can be deployed. 2.8 Explain how to negotiate on cost, contract MOU, licencing and legal issues.	Explain 2.1 to 2.8			Guide students to know the terms thought in 2.1 to 2.8	Explain the term Access meaningful readiness Explain how to determine the cost-benefit and Return On Investment (ROI) of an Electronic Health Records Explain how to negotiate on cost, contract MOU, licencing and legal issues.
General Objective:		3.0: Understand the processes of implementing an electronic Health Records				
	3.1 Explain the process of implementing an electronic records -Workflow and Redesign	Explain 3.1	Textbooks			Explain the process of implementing an electronic

	-Assigning new roles responsibilities -Considering security and privacy -Training and awareness -Documentation and Deployment -Changeover **i.** Direct Cutover **ii**. Pilot **iii**. Parallel **iv**.Phased -Maintenance and customization					records
General Objective:		4.0: Know how to apply Electronic Health Records in the various components of a health system				
	1.1 Explain how Electronic Health Records is applied in Medical Records Department: -Documentation -Library -Appointment -Dispatch Patient to Doctors -Disease/Clinical coding and indexing -Reports and statistical analysts 4.2 Explain Electronic Health Records for in-patient management as follows: -Take vital signs -Ward/Room	Explain 4.1 – 4.12	Textbooks	Apply Electronic Health Records in Medical Records Depertment on areas covered.		Apply Electronic Health Records for in-patient Apply Electronic Health Records for in-patient management as follows: -Take vital signs -Ward/Room -Bed Management -Transfers -Ward round statistics -Chatting -Patient monitoring

	-Bed Management -Transfers -Ward round statistics -Chatting -Patient monitoring -Admission management -Etc 4.3 Explains the use of Electronic Health Records in consultation module as follows: -Take vital signs -Diagnosis -ePrescription -Lab request -Radiology request -Theatre/Procedure request -Patient referrals -In-patient monitoring -Etc 4.4 Explain the application of Electronic Health Records in Laboratory as follows: -Sample collection -Laboratory Reporting -Laboratory investigation -Blood bank management 4.5 Discuss Electronic Health Records in Radiology: -Radiology reporting -Radiology setting 4.6 Explain Electronic Health Records in pharmacy					-Admission management management as follows: -Take vital signs -Ward/Room -Bed Management Etc Demonstrate the use of Electronic Health Records in consultation module as follows: -Take vital signs -Diagnosis -ePrescription -Lab request -Radiology request -Theatre/Procedure request -Patient referrals -In-patient monitoring -Etc Explain the application of Electronic Health Records in Laboratory as

	module as follows: -Dispensing -Active store management -Drug level management -View drugs near expiry -View drugs near recorder level -ePrescription -Accounting -Billing -Account receivable -Account payable 4.7 Describe the application of Electronic Health Records in Maternal and Child Care as follows: -Maternal care unit -Child care unit -Family planning unit 4.8 Explain Electronic Health Records in NHMIS modules 4.9 Explain Electronic Health Records NHIS module 4.10 Electronic Health Records in store module -Raise Purchase Orders -Receive drugs from suppliers -Issue drugs to dispensaries 4.11 Electronic Health Records in administration module					follows: -Sample collection -Laboratory Reporting -Laboratory investigation -Blood bank management Discuss Electronic Health Records in Radiology Demonstrate use of Electronic Health Records in pharmacy module as follows: -Dispensing -Active store management -Drug level management -View drugs near expiry -View drugs near recorder level -ePrescription -Accounting -Billing -Account receivable -Account

	-Raise Local Purchase Orders(LPO) -Register contractors invoices -Maintain hospital assets -Human Resource Management 4.12 Advice trainees to visit health facilities that use Electronic Health Records.					payable Describe the application of Electronic Health Records in Maternal and Child Care as follows: -Maternal care unit -Child care unit -Family planning unit Explain how Electronic Health Records in NHMIS modules Explain Electronic Health Records NHIS module Electronic Health Records in store module Demonstrate Electronic Health Records in administration module -Raise Local Purchase Orders(LPO) -Register

						contractors invoices -Maintain hospital assets -Human Resource Management Advice trainees to visit health facilities that use Electronic Health Records.

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE:	DISEASE CLASSIFICATION AND CLINICAL CODING IV		
CODE:	HIS 422		
DURATION (Hours/Week) Lecture: 1hr	**Tutorial: 0**	**Practical: - 2**	**Total: 3 (45hrs/semester)**
UNITS:	2		
GOAL:	This course is designed to enable the Students acquire advanced knowledge and skills of disease classification and clinical coding		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to :		

1.0 Know how to abstract the diagnosis from patient health record
2.0 Know how to abstract the procedure from patient health record
3.0 Know how to assign code numbers to diseases using the current classification System.
4.0 Know how to assign code number(s) to procedures using the current procedural coding system
5.0 Understand how to index diseases and, operative and non-operative procedures
6.0 Understand qualitative analysis of coded and indexed data
7.0 Understand disease notification system
8.0 Understand death certification and rules for classification
9.0 Understand e-coding /online coding system
10.0 10. know the steps for establishing a coding and indexing unit

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE:	Disease Classification and Clinical Coding IV		**Course Code:**	HIM 422	**Contact Hours:**	45
COURSE SPECIFICATION:		Theoretical Content: 1		Practical Content:	2	
General Objective:	1.0: Know how to abstract the final diagnosis from patient health record					
Weeks	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Objectives**	**Teachers Activities**	**Evaluation**
	1.1 Define the following concepts: - Principal diagnosis - Secondary diagnosis - Others (Associated diagnosis) 1.2 Identify the final diagnosis 1.3 Arrange content of patient record in a prescribed order 1.4 Determine the final diagnosis	Explain 1.1 to 1.4	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 1.1 to 1.4	Guide student to perform the tasks in 1.4 and 1.5	Explain how to arrange content of patient record in a prescribed order
General Objective:	2.0: Know how to abstract the final procedure from patient health record					
	2.1 Define the following concepts: - Principal procedure - Secondary procedure - Other procedures 2.2 Determine the final procedure from relevant	Explain 1.1 to 2.4	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 1.1 to 2.4	Guide student to abstract and classify information in social media	Explain abstraction of disease

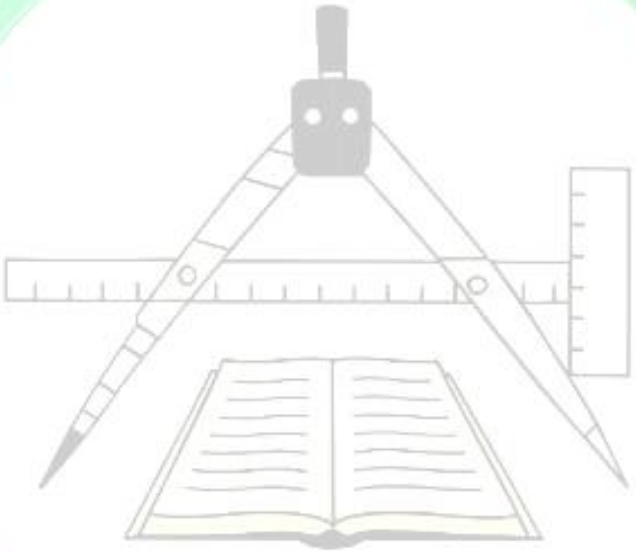
	form 2.3 Determine the final procedure 2.4 Abstract and classify information in social media					
General Objective: 3.0: Know how to assign code numbers to diseases using the current classification System						
	3.1 Describe how to assign code numbers to the diseases affecting the systems of the body 3.2 Describe how to assign code numbers to circumstances surrounding external causes of injury 3.3 Describe how to assign code numbers to drugs and chemical substances 3.4 Assign code numbers to diseases affecting the systems of the body 3.5 Assign code numbers to circumstance surrounding external causes of injuries. 3.6 Assign code numbers to drugs and chemical substances	Explain 1.1 to 3.6	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 1.1 to 3.6	Guide students to assign code numbers to drugs and chemical substances	Explain how to assign code numbers to diseases

General Objective: 4.0: Know how to assign code number(s) to procedures using the current procedural coding system						
	4.1 Assign code numbers to operative and non – operative procedures effecting the systems of the body 1.2 Classify surgical operation	Explain 1.1 to 4.2	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 1.1 to 4.2	Guide student to Classify surgical operation	Explain assignment of code numbers to procedure
General Objective: 5.0**:** Understand how to index diseases and, operative and non-operative procedures						
	5.1 Explain how to index diseases and, operative and non-operative procedures using the following methods: 5.1.1 Simple Indexing 5.1.2 Cross Indexing 5.1.3 Three Card System (Multiple indexing) 5.2 Index diseases and, operative and non-operative procedures with the following methods: – Simple Indexing – Cross Indexing – Three Card System	Explain 5.1 to 5.1	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 5.1 to 5.2	Guide students on how to how to index diseases	Explain how to index diseases
General Objective: 6.0: Understand qualitative analysis of coded and indexed data						
	6.1 Explain qualitative and quantitative analysis and evaluation of coded data 6.3 Explain qualitative and quantitative analysis and evaluation of indexed data 6.4 Evaluating coded and	Explain 6.1 to 6.3	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 6.1 to 6.3		Explain quantitative analysis

	indexed data qualitatively and quantitatively					
General Objective 7.0: Understand disease notification system						
	7.1 Define the following: Disease surveillance, Integrated Disease Surveillance and Response Integrated Diseases Surveillance and Response (IDSR) 7.2 Outline the objectives of IDSR 7.3 Identify sources of data relevant to disease surveillance 7.4 Explain the processes for disease notification and surveillance e.g. IDSR 001, IDSR 001B 7.5 Identify relevant forms for capturing data on disease surveillance and notification e.g. IDSR 001a, IDSR 001b IDSR 002 7.6 Describe the challenges affecting disease surveillance and notification	Explain 7.1 to 7.6	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 7.1 to 7.6	Guide students to the complete DSN forms	Explain the processes for disease notification and surveillance

	7.7 Explain the completion of DSN forms					
General Objective 8.0: Understand death certification and rules for classification						
	8.1 Define medical certification 8.2 Define death certification 8.3 Describe the death certificate 8.4 Identify causes of death 8.5 Describe the guiding rules for selection of cause of death for primary mortality tabulation 8.6 Identify usefulness of death certificate	Explain 8.1 to 8.6	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 8.1 to 8.6	Guide students to complete death certificate	Explain rules for selecting cause of death for primary mortality
General Objective: 9.0 Understand e-coding /online coding system						
	9.1 Explain e-coding 9.2 Explain web online coding 9.3 Explain the ICD- online coding system 9.4 Explain the numbering system of the ICD-11 9.5 Explain the steps in online coding 9.6 Explain indexing process with online coding	Explain 9.1 to 9.6	Text books Lecture notes ICD-10, 11 manuals Procedure classification manuals	Explain 9.1 to 8.6	Guide students to code online	**Explain** the numbering system of the ICD-11
General Objective: 10.0 know the steps for establishing a coding and indexing unit						
	10.1 Explain clinical coding unit 10.2 Identify clinical coding tools	Explain 10.1 to 10.6	Text books Lecture notes ICD-10, 11 manuals	Explain 10.1 to 10.6	**Guide student to** develop proposal	Explain clinical coding unit

	10.3 Estimate budgeting for tools 10.4 Explain developing proposal 10.5 Identify training needs 10.6 Explain establish the unit		Procedure classification manuals			



PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)			
COURSE TITLE: HOSPITAL STATISTICS II			
CODE: HIM 423			
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS: 3			
GOAL: This course is designed to enable students acquire knowledge in Hospital Statistics			
GENERAL OBJECTIVES: On completion of this course, the student should be able to:			
1.0 Understand the Concept of Hospital Data Management 2.0 Understand hospital activity analysis 3.0 Know the pattern for analysis of ICD Coded Data 4.0 Know models of hospital activity analysis 5.0 Know hospital quality metrics 6.0 Know format of reporting hospital activities 7.0 Understand Indices of population at risk 8.0 Understand the design of clinical trials in hospitals 9.0 Know Disease Surveillance and Notification(DSN)			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE:	HOSPITAL STATISTICS II	**Course Code:**	HIM 423	**Contact Hours:**	45 Hours	
COURSE SPECIFICATION:	Theoretical Content: 2		Practical Content: 1			
General Objective:	1:0 Understand the Concept of Hospital Data Management					
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1	1.1 Explain the followings: – Hospital Data – Source of Hospital Data – Collection process, – etc 1.2 Explain Concept of Hospital Data Management 1.3 Explain roles of Hospital Data 1.4 Explain uses of Hospital Data 1.5 Explain hospital data analysis 1.6 Describe methods of analysis 1.7 Describe data presentation	Explanation Discussion 1.1 to and 1.7	Textbooks, Charts and Forms, Reading materials.			Explain the followings: – Hospital Data – Source of Hospital Data – Collection process,
General Objective 2:0 Understand hospital activity analysis						
2	2.1 Define hospital discharge analysis 2.2 Explain types of hospital discharge analysis for daily, weekly, monthly, annually, etc. 2.3 Describe cost-efficiency	Explanation 2.1 to 2.7	Textbooks, Charts and Forms, Reading materials.	Prepare hospital discharge activity analysis	Guide students to prepare contents of discharge analysis	Explain the importance of hospital discharge activities

	analysis of hospital beds 2.4 List types of discharge analysis 2.5 Outline the contents of discharge analysis 2.6 Explain hospital activity analysis 2.7 Explain uses of hospital activity analysis.					contents of discharge analysis
General Objective 3:0 Know the pattern for analysis of ICD Coded Data						
3-4	3.1 Explain Concept of ICD coded data 3.2 Explain nature of coded data 3.3 Explain Classification 3.4 Describe Coding process 3.5 Explain Accuracy in Coding process 3.6 Describe nature of Morbidity data 3.7 Explain Nature of Mortality data 3.8 explain how to compile ICD coded data – Manual system – Digital system 3.9 Explain pattern of ICD reporting for: – special tabulation list – Morbidity list – Mortality list – International list	Explain 3.1 to 3.10	Textbooks, Charts and Forms, Reading materials, Morbidity and mortality data base.	Compile ICD coded data – Manual system – Digital system Collate coded data for research Demonstrate pattern of ICD reporting for: – special tabulation list – Morbidity list – Mortality list – International list Collate coded data for research	Guide student to compile ICD coded data using manual and digital system Guide students to collate ICD coded data for: – special tabulation list – Morbidity list – Mortality list – International list Collate coded data for research	Students to explain Nature of coded data explain how to compile ICD coded data using Manual and Digital format Explain pattern of ICD reporting – special tabulation list – Morbidity list

	3.10 Explain how to collate coded data for research				Collate coded data for research	– Mortality list – International list Collate coded data for research
General Objective 4:0 Know models of hospital activity analysis						
5-6	4.1 Explain the concept of analysis of trend diseases using graphical approach 4.2 Explain how to interpret graphs 4.3 Explain how to report hospital data 4.4 Explain the concept of models 4.5 list types of types models 4.6 list models for hospital data 4.7 Explain the following models: – The Pabon Lasso's (PL) model – Roemer's Law of Demand – Queuing Model for Hospital Bed Occupancy Management 4.8 Apply models in 4.7 to hospital data 4.9 Interpret results of models	Explain 4.1 to 4.9	Textbooks, Charts and Forms, Reading materials.	Explain how to report hospital activity analysis interpret graphs Demonstrate applicate of models using hospital data report hospital data	Guide students to apply models hospital data Guide students to Interpret results of models	Explain models hospital activity analysis Interpret results of models
General Objective 5:0 Know hospital quality metrics						

7-8	5.1 Explain the following hospital quality metrics: – Length of Stay – Readmission Rates – Mortality Rates – Bed Utilization Rates – Incidents – Average Cost per Discharge – Bad Debt Ratio – Patient satisfaction rate – Hospital Utilization Rate 5.2 Compute the hospital quality metrics listed in 5.1 above 5.3 Interpret hospital quality metrics	Explain 5.1 - 5.3	Textbooks, Charts and Forms, Reading materials.	Explain the terms in 5.1	Guide students to compute the hospital quality metrics listed Guide students Interpret hospital quality metrics	Explain hospital quality metrics Interpret hospital quality metrics
General Objective 6:0 Know format of reporting hospital activities						
9-10	6.1 Describe the procedure for presenting reports of hospital activities by: – specialties, – clinics, – units and – services departments 6.2 Describe the procedure for: – daily, – weekly, – monthly, – annually reporting	Explain 6.1 to 6.4	Textbooks, Charts and Forms, Reading materials.	Explain procedure for presenting reports of hospital activities Explain procedure for Morbidity and Mortality data reports	Guide students to present reports of hospital activities Guide students to present reports of Morbidity and Mortality data Guide students	Explain the format for presenting reports of hospital activities explain the procedure for reporting Morbidity and Mortality data

	6.3 Explain the ICD format for reporting: – Morbidity data – Mortality data 6.4 Explain the ICD format for death certificate				on format for death certificate	
General Objective 7:0 Understand indices of population at risk						
11	7.1 Explain population at risk 7.2 Explain source of data on population at risk 7.3 Describe hospital catchment area 7.4 Estimate hospital catchment area 7.5 Estimate population within hospital catchment area 7.6 Explain denominator for rates 7.7 Explain specific denominators of hospital rates – age distribution – gender distribution – occupation – economic status	Explain 7.1 to 7.7	Textbooks, Charts and Forms, Reading materials.	Explain 7.1 to 7.7	Explanation Discussion	Explain population at risk Explain hospital catchment area
General Objective 8.0: Understand the design of clinical trials (CT) in hospital						
12-13	7.1 Explain the concept of clinical trails 7.2 Explain clinical trails 7.3 Explain design of clinical trials 7.4 Decribe the roles of clinical trails	Explain 8.1 to 8.8	Textbooks, Charts and Forms, Reading materials.	Explain 8.1 to 8.8 Explain design of clinical trails	Explain	Students explain design of clinical trails

	7.5 Explain randomization in CT 7.6 Enumerate types CTs – controlled – uncontrolled – randomized, – non-randomized – cross-over and – factorial clinical trial. – etc 8.3 Explain types CTs list in 4.2 above 8.4 Explain protocols of clinical trials as: – objectives – background and Rationale – subject Selection Criteria – Treatment Plan – Study Procedures – Response Evaluation Criteria – Statistical Selection 8.5 Explain blinding in CT – Explain blinding – importance of blinding – issues pertaining to blinding – a placebo-controlled trial – placebo effect.			Explain types of clinical trails To explain phases of clinical trails		Students explain types of clinical trails Students explain phases of clinical trails Students to explain ethics of

	8.6 Explain the phases of CT: – Phase 0: from bench to human: – Phase I: Deciding on dose – Phase II: Efficacy and safety – Phase III: Clinical outcome 8.7 Ethics issues in clinical trials as: – Nuremberg Code – Declaration of Helsinki – Belmont Report – Equipoise – Consent – components of informed consent form 8.8 Measurement and Analysis Data: – Measures and endpoints – Required observations – Types of measures – baseline measurements – Case report forms – Data collection – Database and software – Staffing and resources			To explain ethics of clinical trails		clinical trails
General Objective 9.0: Know Disease Surveillance and Notification (DSN)						
14-15	9.1 Define Surveillance and Notification	Explain 9.1 to 9.6	Textbooks, Charts and	Explain 9.1 to 9.6	Guide students to report on	Students explain DSN reporting

	9.2 Explain the DSN System – List notifiable diseases/conditions – Explain roles of DSN in disease control 9.3 Explain the types of reporting – Routine – Emergency 9.4 List the DSN forms 9.5 Explain procedure for reporting 9.6 Data flow		Forms, Reading materials.		DSN forms	System Students o explain DSN reporting System

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	DATA SHARING, DISSEMINATION AND USE		
CODE:	**HIM 424**		
DURATION (Hours/Week) **Lecture: 2hrs**	**Tutorial: 0**	**Practical: - 2**	**Total: (45hrs/semester)**
UNITS:	**3**		
GOAL:	This course is designed to enable students acquire knowledge and skills in data sharing, dissemination and use.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Know various sources of existing data, data extraction, data analysis, data presentation and terms used in data sharing 2.0 Understand the importance of data sharing, dissemination and use within and outside the health institution 3.0 Understand data security, confidentiality of data, data disposal, copyright issues, disaster management etc. 4.0 Understand the contents of data sharing plan, data sharing plan preparation and data sharing implementation 5.0 Understand the contents and preparation of data sharing agreement, data sharing policy and data sharing regulation			

PROGRAMME: HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)						
COURSE TITLE: Data sharing, Dissemination and Use **Course Code: HIM 425** **Contact Hours: 45 Hours**						
COURSE SPECIFICATION: **Theoretical Content: 1** **Practical Content: 2**						
General Objective 1.0: Understand						
week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1-	1.1 Explain various sources of existing data in health institutions that can be shared 1.2 Describe how data extraction is carried out 1.3 Explain data protection and security 1.4 Explain data documentation, confidentiality and privacy issues 1.5 Explain data sharing financing(Fund for data sharing) 1.6 Explain data disposal and processes involved.	Explains 1.1 to 1.6	White board/ marker Charts to list types Text books/ journals Computer set Power point slides Multimedia projector Supplemental readings (Web links)	Extract data from various sources of existing data in the institution Analyze and present the data	Guides students to carry out the activities spelt in 1.1 to 1.6	Explain various sources of existing data in health institutions that can be shared Describe how data extraction is carried out. Explain data sharing financing(Fund for data sharing).
General Objective 2.0: Understand the importance of data sharing, dissemination and use within and outside the health institution						
2	2.1 Explain the importance of data sharing to care givers and other data user	Explain 2.1 to 2.3	-White board/ marker	Demonstrate e-health with the use of available EMR software.	Guide and supervise the students to	Explain the importance of data sharing to care givers and

	2.2 Explain data dissemination within a department, with other departments, institutions to institutions, local government, state and national. 2.3 State the importance of feedback in data sharing and dissemination.		- charts to list parts -text books/ journals -Power point slides -Multimedia projector Supplementa l readings (Web link	Draw channels of data dissemination, feedback mechanism and referral system in health care institution.	perform the task in 2.1 to 2.3	other data user Demonstrate e-health with the use of available EMR software.
General Objective 3.0:		Understand data security, confidentiality of data, data disposal, copyright issues, disaster management				
3	3.1 Explain data storage and retrieval 3.2 Explain storage in data sharing using flash, CD, DVD 3.3 Explain data ownership and copyright 3.4 Explain process of data disposal	Explain 3.1 to 3.4	White board/ marker Charts to list parts, Flash, DVD, text books/ journals Computer set Power point slides	Store and share data on storage devices.	Guide students to store and share data using storage devices	Explain data storage and retrieval Demonstrate storage in data sharing using flash, CD, DVD

			Multimedia projector Supplemental readings (Web links)			
General Objective 4.0: Understand the contents of data sharing plan, data sharing preparation and data sharing plan.						
4	4.1 Explain the meaning of data sharing plan 4.2 Explain the meaning of the following data sharing terms: -Covered entity -Data achieve -Data enclave -Timeless data etc 4.3 Describe the process of data sharing plan	Explain 4.1 to 4.3	-White board/ marker - charts to list types -text books/ journals -Computer set -Power point slides -Multimedia projector Supplemental readings (Web links)	Prepare data sharing plan	Supervise students to prepare data sharing plan	Explain the meaning of data sharing plan Describe the process of data sharing plan

General Objective 5.0:	Understand the contents and preparation of data sharing agreement, data sharing policy and datasharing regulation					
5 & 6	1.1 Explain the contents of (DSA) Data Sharing Agreement. 1.2 Explain factors that can work against DSA such as conflict of interest, ethical consideration, lack of communication etc 1.3 Explain critical success to DSA. -focus on desired income, regular communication Etc 1.4 Explain the contents of data sharing policy (DSP) and regulation State importance of agreement, policy and regulation in data administration	Explain 5.1 to 5.5	-White board/ marker - charts to list types -text books/ journals -Computer set -Power point slides -Multimedia projector Supplemental readings (Web links	Prepare DSA, DSP	Guide students to carry out activities in 5.1 to 5.5	Explain the contents of (DSA) Data Sharing Agreement. Explain critical success to DSA. -focus on desired income, regular communication Explain the contents of data sharing policy (DSP) and regulation

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE:	HEALTH INFORMATION MANAGEMENT IV		
CODE:	HIM 425		
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 1**	**Total: 3 (45hrs/semester)**
UNITS:	3		
GOAL:	This course is designed to enable the students acquire advanced knowledge in Health Information Management		
GENERAL OBJECTIVES:	On completion of this course, the students should be able to:		
1.0 Understand the roles of various health facility committees 2.0 Understand the procedures for medical care evaluation 3.0 Understand the process and procedures for registering ambulatory patients 4.0 Understand the organization and management of special health records 5.0 Understand the administration of the health record department 6.0 Understand the emerging issues in health information management			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	HEALTH INFORMATION MANAGEMENT IV	Course Code:	HIM 425	Contact Hours:	(45 Hours/S 3	
COURSE SPECIFICATION:	Theoretical Content: 0		Practical Content: 1			
General Objective	1.0: Understand the roles of various health facility committees					
week	Specific Learning Outcome	Teachers Activities	Learning Resources	Specific Learning Outcome	Teachers Activities	Evaluation
	1.1 Explain the importance of committee system in management 1.2 1.3 Explain health information departmental committee 1.4 List the various committees in the hospital 1.5 Outline the functions and composition of the committees in 1.2 and 1.3 above 1.6 Explain the roles of health information officer especially in the following committees: - Health Records Sub-Committee - Audit Committee - Medical Evaluation Committee - Tissue Committee - Hospital Utilization review Committee - Other Committees	Explain 1.1 to 1.6	Textbooks Charts and forms, Reading materials	Explain different types of committee in health care facility	Guide student to set examples of committee	Explain how to set up committees in health facility

	1.7 List the term of reference for the committees listed in 1.5 above					
General Objective		2.0: Understand the procedures for medical care evaluation				
	2.1 Explain medical care evaluation 2.2 Define the following; – Medical Audit – Quality assurance in health care – Quality improvement in health care – Qualitative analysis patients record – Quantitative analysis patients record – Peer review in health care 2.3 Outline a brief history of medical audit 2.4 Describe the internal and external methods of medical auditing 2.5 Explain the steps in medical audit 2.6 Describe the audit cycle 2.7 List members of the medical audit committee 2.8 Explain the roles of health information officer in committee in 2.7 above 2.9 Outline the importance of care evaluation in health care	Explain 2.1 to 2.9	Textbooks, Charts and Forms, Reading materials. Patients records	Explain 2.1 to 2.9	**Guide students to** develop Medical Audit Cycle	Explain care evaluation

General Objective		3.0: Understand the process and procedures for registering ambulatory patient					
	3.1 Explain ambulatory patient care 3.2 Explain the general objective of health records in ambulatory care 3.3 Explain the concept of ambulatory care 3.4 Describe the organization of ambulatory personal health service 3.5 Explain the procedure for collecting ambulatory care data 3.6 Outline the method of collection of statistics on ambulatory patient care 3.7 Explain methods of analyzing ambulatory care data	Explain 3.1 to 3.7	Textbooks Charts and forms, Reading materials Secondary data from hospitals and other services	Design the format for ambulatory care records	Guide the student to perform the task in 3.8	Register patients using registers and cards
General Objective		4.0: Understand the organization and management of special health records					

	4.1	Explain the concept of the following records: - Family Planning Records - School Health Records - Trado-medical Health care Records - HIV Aides Records	Explain 4.1 – 4.4	Textbooks Charts and forms, Reading materials	Explain management of special care records		Explain the concept of special health records
	4.2	Describe the organization of the records in 4.1 above					
	4.3	Describe the management of the records in 4.1 above					
	4.4	Explain the retention and disposal records in 4.1 above					
General Objective		5.0: Understand the administration of the health record department					
	5.1	Explain the process of planning a health information department as follows: - define the functions of an health information department for planning purposes	Explain the concepts of planning health records department	Textbooks Charts and forms, Reading materials	List the processes of setting health records department		Explain health records department

	- identify the most suitable site - calculate space required for defined functions, staff and record storage - communicate effectively with architects and hospital administrator to ensure needs are recognized and met 5.2 Explain the 4 basic management process as follows: - Planning for the future - Organizing - Developing both human and material resources - Directing individuals/groups						
General Objective		6.0: Understand the emerging issues in health information management					
	6.1 Explain the	Explain the	Textbooks	Explain imaging			Explain health

	following emerging issues in Health information management: 6.2 electronic health records (EHR) 6.3 electronic health records, inter-operability and confidentiality - e-coding - reimbursement - personal health records	concepts covered	Charts and forms, Reading materials	issue in managing health records		information management

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)		
COURSE TITLE:	INDEPENDENT RESEARCH PROJECT		
CODE:	**HIM 426**		
DURATION (Hours/Week) Lecture: 2hrs	**Tutorial: 0**	**Practical: - 6**	**Total: 6 (90hrs/semester)**
UNITS:	**6**		
GOAL:	This course is designed to enable the student to undertake an individual scientific research project and write a report on it.		
GENERAL OBJECTIVES:	On completion of this course, the student should be able to:		
1.0 Conduct a scientific research on a chosen topic from available sources 2.0 Collect data on the chosen topic 3.0 Produce a report on the chosen topic			

PROGRAMME:	HEALTH INFORMATION MANAGEMENT (HIGHER NATIONAL DIPLOMA)					
COURSE TITLE:	INDEPENDENT RESEARCH PROJECT **Course Code: HIM 424** **Contact Hours: 90 Hours**					
COURSE SPECIFICATION:	**Theoretical Content: 0** **Practical Content: 6**					
General Objective 1.0:	Conduct a scientific research on a chosen topic from available sources					
Week	**Specific Learning Outcome**	**Teachers Activities**	**Learning Resources**	**Specific Learning Outcome**	**Teachers Activities**	**Evaluation**
1-3	1.5 Prepare a research protocol 1.6 Submit the protocol to a Health Research Ethics Committee for Ethics approval 1.7 Conduct an ethically sound scientific research on a chosen topic	Explain 1.1 to 1.3	Textbooks, Journal articles, White board/ markers, Internet resources, Ms PowerPoint slides, CD-ROM and Multimedia Projector	To explain how to prepare a research protocol, obtain ethics approval and conduct an ethically sound scientific research	Guide the students to explain how to prepare a research protocol, obtain ethics approval and conduct an ethically sound scientific research	Explain how to prepare a research protocol, obtain ethics approval and conduct an ethically sound scientific research
General Objective 2.0: Collect data on the chosen topic						
4-8	2.4 Design a questionnaire, Checklist or Health Records Review Form 2.5 Prepare information sheet to present detail information to the participants 2.6 Prepare and Informed Consent 2.7 Recruit participants	Explain 2.1 to 2.5	Textbooks, Journals, White board/ markers, Internet resources, Ms PowerPoint slides, CD-	To explain how design questionnaire, prepare information sheet and informed consent, recruit participants and administer the instrument	Guide the students to explain how design questionnaire, prepare information sheet and informed	Explain how to design a questionnaire, Explain how to prepare information sheet and informed consent

	2.8 Administer the questionnaire		ROM and Multimedia Projector		consent, recruit participants and administer the instrument	Explain how to recruit participants and administer the instrument
General Objective 3.0: Produce a report on the chosen topic						
9-13	3.1 Collate the questionnaire based on participants' responses 3.2 Code the data and prepare data analysis protocol 3.3 Analyze the data 3.4 Conduct data cleansing 3.5 Prepare initial draft of the manuscript 3.6 Review and prepare the final manuscript 3.7 Submit research report to the appropriate School authority 3.8 Consider journal publication	Explain 3.1 to 3.8	Textbooks, Journals, White board/ markers, Internet resources, Questionnaire, Ms PowerPoint slides, CD-ROM and Multimedia Projector	To explain how to collate completed questionnaires and code the data To explain how to analyze data and prepare manuscript	Guide the students to explain how to collate completed questionnaires and code the data Guide the students to explain how to analyze data and prepare manuscript	Explain how to collate completed questionnaires and code the data Explain how to analyze data Explain how prepare manuscript

LIST OF REQUIRED EQUIPMENT IN COMPUTER LABORATORY

S/NO.	EQUIPMENT	QUANTITY REQUIRED
1.	Computer Sets	50
2.	UPS	50
3.	Stabilizer [5000 watt]	10
4.	Soft Wares Installed Microsoft Windows Microsoft Office Suites Electronic Health Records Training Software SPSS EPI info. Corel Draw 16	Varied
5.	Printer	2
6.	Photocopier	2
7.	Projector	2
8.	Scanner	2
9.	ICD - 10	10 copies
10.	ICD – 10 PCS	10 copies
11.	OPCS Classification of Interventions and Procedures	10 copies
12.	ICD - 11	10 (Hard copies)
13.	ICD-11	Soft copy

HIM DEMONSTRATION ROOM

S/NO	ITEM	NO REQUIRED
1.	**Filing Shelves**	**3**
2.	**Dummy Patient Records**	**100**
3.	**Dummy Registers**	**5**
4.	**Recording Processing Bay**	**1**
5.	**A & D, Statistics, Appointments Units**	
6.	**Clinical Coding and Indexing Units**	**(Coding Tools available)**
7.	**Tables and Chairs**	
8.	**8 Cabinet Shelves (For MPI)**	**1**
9.	**Computer**	**1**

LIST OF PARTICIPANTS FOR HEALTH INFORMATION MANAGEMENT (HIM)

S/N	NAME	ADDRESS	E-MAIL	PHONE NUMBER
1.	Hon. Ibrahim Jibrin Sokoto (Chairman)	Health Records Board	ibrahimsokotojibrin@gmail.com	08035042077
2.	Mustapha Babagana	Health Record Board		08036109596
3.	Prof. M.A.T Suleiman	Federal University Technology (FUT) Minna Consultant to Health Records Officers Registration Board of Nigeria (HRORBN)	smatsule@yahoo.com	08034747754
4.	Dr. Benson M. Oweghoro	University Teaching Hospital Ibadan Consultant to HRORBN	bmoweghoro@gmail.com	08033724724
5.	Abdu Baffa Tarauni	Alasan Ibrahim Dawanau College of Health Science Technology Kano	abdubaffatarauni@yahoo.com	08065954113
6.	Wada Aliyu	Health Records Officers Registration Board of Nigeria (HRORBN) Abuja	wadaaliyu5015@gmail.com	07033816051
7.	Dr. Adebayo Tajudeen	Federal Medical Centre, Owo	adebayott@gmail.com	08060886351 08050713806
8.	Lucky Agbonzikilo	School of Health Information Management, University of Benin Teaching Hospital	lukyagbonzikilo@gmail.com	08080859693 08063921117
9.	Salihu-MuhammodRabiu	Federal University of Agriculture Abeokuta, Ogun State	ibnsalihu@gmail.com	08031199827

10.	Gidado Atanda Samson	Lagos University Teaching Hospital (LUTH)	Samvic_omotosho@yahoo.co.uk	08056376931
11.	Muhammad Danladi	College of Health Technology Jahun Jigawa State	abubilalhiman@gmail.com	07036469801
12.	Abubakar Abdullahi	Ahmadu Bello Unversity Teaching Hospital (ABUTH) Zaria	ababdullahi1968@gmail.com	08036951486
13	Umar Sani	Health Records Officers Registration Board of Nigeria (HRORBN) North West Zone Office	umarsheme@gmail.com	08067595544
14.	Adeleke Ibrahim Taiwo	Federal Medical Centre, Bida, Health Records Officers Registration Board of Nigeria (HRORBN)	aitofiseyin@yahoo.com	08034229146
15.	Ishaku Mohammed	Health Records Officers Registration Board of Nigeria (HRORBN)	ishaqmomodu@gmail.com	0803347286
16.	Muhammad Haruna Alfa	Health Records Officers Registration Board of Nigeria (HRORBN) North West Zone Kaduna	Muhammadharun2015@gmail.com	08033154572

NBTE STAFF

17.	Prof. I.M Bugaje	Executive Secretary NBTE Kaduna		
18.	Musa M Isgogo	Director, Curriculum	dugujiisgogo@gmail.com	08067185383
19.	Ibrahim Bashir Bello	Special Assistant to E.S		08037120542
20.	BalaDanladiAkut	NBTE	Baladanladi2000@yahoo.ca	08033175286
21.	Yusuf Bello Yakubu	NBTE	yusufgwaram@gmail.com	08036527689
22.	IshaqYaqub	NBTE	Ishaqyaqub272@gmail.com	08033959550

SECRETARIAT

23.	Bako Godwin	NBTE	meetbako@gmail.com	07012222600
24.	Mohammed O. Oboshi	NBTE Consult	mohammedoboshi@gmail.com	08133617299