B.HIM. Health Information Management

Overview

The Health sector in Nigeria is a fast growing sub-sector of the social services. Health and medical personnel need accurate, reliable, complete and timely information for planning, decision-making and controlling. The new programme B.HIM is tailored to achieve this and offer some fundamental skills, knowledge and experiences that must be covered in order for a degree to be successfully accredited by the profession and for graduates to be credible employees in the eyes of potential employers. This programme is designed to meet students' strengths and interests while giving the best learning experiences to inform specialization desires. The diversity of interdisciplinary courses ultimately equip students to know, understand and acquire the requisite skills to address the interconnected challenges of global environmental and climate change. The programme is expected to build up a broad knowledge of subject and assist the student to get first experiences of practical work. After regular study duration of ten semesters the students are graduated with the degree Bachelor of Health Information Management (B.HIM). The overview explains the pertinence of producing thoroughly bred and well informed Health Information Management Practitioners compatible with what is obtainable in the developed world through acquisition of University education, training and development.

Philosophy

The philosophy of the Bachelor of Health Information Management is to provide sound academic and professional training for prospective Health Information Management Officers who will work in public, private and non-governmental health and medical establishments. The programme was borne out of the realisation that there is a need to expand Health Information Management Programme to cover the training of high level manpower needed in Health sector at both National, Regional and International markets. The programme is important in order to give academic training to prospective applicants and members of the existing teaching staff at the various health information management departments in Nigeria and those that may be willing to teach in Schools of Health Information Management throughout the federation.

Objectives

The Bachelor Degree Programme in Health Information Management (B.HIM) is designed to foster the development of professional Health Information Management practice in Nigeria, and to provide candidates with high level of intellectual and professional skills that will enable them function effectively in the society. Specifically, the programme is intended to:

1. provide prospective Health Information Management Officers with the intellectual and professional background adequate for their assignments and to make them adaptable to any changing situations within the health care industry;
2. provide high skilled manpower for leadership positions in Nigerian Health Industry;
3. produce highly qualified and motivated personnel for the Information management industry;
4. expose the students to variety of Health Information and health problems and to encourage them develop spirit of understanding and control; and

5. produce highly creative and innovative Health Information Management personnel for self-employment in Nigeria and elsewhere.

Unique Features of the Programme

The unique feature of the Health Information Management Programme from other Allied Health Science Programmes is that, it is the pivot on which other programmes rotate for relevance, effective functioning and survival. This is based on obvious facts that all Allied Health Sciences Programmes require relevant data and information for effective job performance, patient's care, research, education and training which can only be sourced through health information management practices.

B.HIM will enable the graduate to effectively deal with the organisation and management of patient data stored manually and electronically. HIM professionals will be able to code health information for proper distribution or research and to ensure their organisation complies with governmental regulations pertaining to patient data. They will be able to ensure that patient health records are complete, accurate and that they provide access to records to those appropriate while protecting the privacy and security of patient health information. They are expected after their training to have gathered enough experience with medical records management, coding and billing, and regulatory requirements. HIM involves the management of personal health information in healthcare organisations, hospitals, and public health programs to enable the delivery of services to the public. Some of the types of data that a Health Information Management Officer or professional may work with include patient histories from physical exams, clinical information from physical therapy and nursing notes, and records of X-rays and other radiological procedures.

Employability Skills

The skills required is to acquire and offer basic theoretical knowledge for effective performance of professional duties in Health Information Management thereby providing relevant practical exposure and competence necessary for enhanced job performance. B.HIM as a Degree course is new in Nigeria and highly relevant to the demands in the 36 states of the federation. With the possible release of relevant BMAS by NUC, the numerous trained personnel in HIM at Diploma, ND and HND can have the opportunity of attaining a higher qualification that is required for their promotion in the private and public service in Nigeria.

21st Century Skills

1. Collaboration and team work
2. Creativity and imagination
3. Critical thinking
4. Problem solving
5. Flexibility and adaptability
6. Information Literacy
7. Leadership
8. Civic literacy and citizenship
9. Social responsibility
10. Technology literacy
11. Initiative

Admission and Graduation Requirements
Five-Year Degree Programme
Candidates are expected to have credit passes in the Senior Secondary Certificate (SSC) or its equivalent in five subjects (Mathematics, English, Biology, Physics and Chemistry) at not more than two sittings in addition to acceptable pass in the Unified Tertiary Matriculation Examination (UTME).

Direct Entry (3 & 4 year degree programme)
Any one of the following qualifications is admissible for either of these options:
In addition to SSC requirements stipulated above, applicants should possess at least two A'Level papers in relevant subjects.

Three Year Direct Entry:
Candidates are to be admitted to the 300 level and are expected to have completed their HND in Health Information Management and must have participated in the compulsory one year NYSC programme. This programme is also called top-up in some universities in Nigeria

Four-Year Direct Entry:
Candidates are to be admitted to the 200 level and must have completed professional diploma or National Diploma (ND) in Health Information Management at the Colleges of Health Science and Technology in Nigeria or its equivalent. In addition, candidates are expected to have the same entry requirements of credit in five (5) subjects (Mathematics, English, Biology, Physics and chemistry) at no more than two sittings.

Graduation Requirements
1. To qualify for award of Bachelor Degree in Health Information Management, candidates must pass a minimum of 150 credit units for University Matriculation Examination Candidates or 120 and 100 credit units for the ND and HND direct entry candidates respectively.
2. All compulsory and required courses must be passed with a minimum of 45%.

Global Course Structure

100 Level

Course Code	Course Title	Unit(s)	Status	LH	PH
GST 111	Communication in English	2	C	15	45
GST 112	Nigerian Peoples & Culture	2	C	30	-
BIO 101	General Biology 1	2	C	30	-
BIO 121	General Biology II	2	C	30	-
BIO 111	General Biology Practical I	1	C	-	45
BIO 122	General Biology Practical II	1	C	-	45
CHM 101	General Chemistry I	2	C	30	-
CHM 121	General Chemistry II	2	C	30	-
CHM 111	Practical Chemistry I	1	C	-	45
CHM 122	Practical Chemistry II	1	C	-	45
PHY 101	General Physics I	2	C	30	-
PHY 121	General physics II	2	C	30	-
PHY 111	General Practical Physics I	1	C	-	45
PHY 122	General Practical Physics II	1	C	-	45
STA 111	Basic Statistics	2	C	30	-
	Total Units	**24**			-

200 Level

Course Code	Course Title	Unit(s)	Status	LH	PH
GST 212	Philosophy, Logic and HumanExistence	2	C	30	-
ENT 211	Entrepreneurship and Innovation	2	C	30	-
HIM 211	Introduction To Health Information Science	2	C	30	-
HIM 212	Health Records Management I	2	C	30	-
CHS 212	Introduction to Public Health & Primary health Care	2	C	30	-
ANA 201	Anatomy of Upper and Lower Limbs	2	C	15	45
HIM 221	Introduction to Information Technology and Organisational Information Security	2	C	30	-
HIM 222	Knowledge Management In Health Information System	2	C	30	-
HIM 223	Statistical Methods In Health Information Management I	2	C	30	-
HIM 224	Disease Classification, Clinical Coding, Indexing and Abstracting.	2	C	15	45
CHS 221	Principles of Epidemiology and Disease Surveillance	2	C	30	-
	Total Units	**23**			

300 Level

Course Code	Course Title	Unit(s)	Status	LH	PH
GST 312	Peace and Conflict Resolution	2	C	30	-
ENT 312	Venture Creation	2	C	15	45
HIM 311	Hospital Official Statistics	2	C	30	-
HIM 312	Policy, Legal and ethics aspect of HIM	2	C	30	-
HIM 313	Database Construction And Management in Health Information System	2	C	15	45
HIM 314	Statistical Methods in Health Information Management II	2	C	30	-
HIM 315	Health Records Management II	2	C	30	-
PHA 311	Introduction to Pharmacology I	2	C	30	-
HIM 321	Health Care Financing Insurance Principles And Programmes	2	C	30	-
HIM 322	Fundamental of Medical Practice	2	C	30	-
HIM 323	Software Application to Health Information Management	2	C	15	45
COM 315	Biostatistics	2	C	30	-
	Total Units	**24**			

400 Level

Course Code	Course Title	Unit(s)	Status	LH	PH
HIM 411	Computer Application In Health Information System	2	C	30	-
HIM 412	Principles Of Information Retrieval System	2	C	30	-
HIM 413	Principles Of Management In Health Care System II	2	C	30	-
HIM 414	Research Methods and Proposal writing in Health Information Management	2	C	30	-
CHS 422	Demography and Social Statistics in Public Health	2	C	30	-
HIM 460	Industrial Training in Medical and Health institutions	4	C	-	180
	Total Units	**14**			-

500 Level

Course Code	Course Title	Unit(s)	Status	LH	PH
HIM 511	Data Communications And telecommunications Networking and Structures	2	C	30	-
HIM 512	Health Information System Analysis and Design	2	C	30	-
HIM 513	Public Relations In Health Information System	2	C	30	-
HIM 514	Health Records Management III	2	C	30	-
CHS 512	Psychology of Development, Health Behaviour & Change Process	2	C	30	-
HIM 521	Economics And Marketing of Health Information	2	C	30	-
HIM 522 -	Preservation, Conservation and Disaster Management in Health Records	2	C	30	-
HIM 523	Hospital Management, Interdepartmental Structure and Organogram	2	C	30	-
HIM 524	Research Project	4	C	-	180
	TOTAL	**20**			

Course Contents and Learning Outcomes

100 Level

GST 111: Communication in English   (2 Unit C: LH 15; PH 45)

Learning Outcomes

At the end of this course, students should be able to:
1. identify possible sound patterns in English Language;
2. list notable Language skills;
3. classify word formation processes;
4. construct simple and fairly complex sentences in English;
5. apply logical and critical reasoning skills for meaningful presentations;
6. demonstrate an appreciable level of the art of public speaking and listening; and
7. write simple and technical reports.

Course Contents

Sound patterns in English Language (vowels and consonants, phonetics and phonology). English word classes (lexical and grammatical words, definitions, forms, functions, usages, collocations). Sentence in English (types: structural and functional, simple and complex). Grammar and Usage (tense, mood, modality and concord, aspects of language use in everyday life). Logical and Critical Thinking and Reasoning Methods (Logic and Syllogism, Inductive and Deductive Argument and Reasoning Methods, Analogy, Generalisation and Explanations).

Ethical considerations, Copyright Rules and Infringements. Writing Activities: (Pre-writing , Writing, Post writing, Editing and Proofreading; Brainstorming, outlining, Paragraphing, Types of writing, Summary, Essays, Letter, Curriculum Vitae, Report writing, Note making and many others. Mechanics of writing). Comprehension Strategies: (Reading and types of Reading, Comprehension Skills, 3RsQ). Information and Communication Technology in modern Language Learning. Language skills for effective communication. Major word formation processes. Writing and reading comprehension strategies. Logical and critical reasoning for meaningful presentations. Art of public speaking and listening. Report writing.

GST 112: Nigerian Peoples and Culture   (2 Units C: LH:30)

Learning Outcomes
At the end of the course, students should be able to:
1. analyse the historical foundation of the Nigerian culture and arts in pre-colonial times;
2. list and identify the major linguistic groups in Nigeria;
3. explain the gradual evolution of Nigeria as a political unit;
4. analyse the concepts of Trade, Economic and Self-reliance status of the Nigerian peoples towards national development;
5. enumerate the challenges of the Nigerian State towards Nation building;
6. analyse the role of the Judiciary in upholding people's fundamental rights;
7. identify acceptable norms and values of the major ethnic groups in Nigeria; and
8. list and suggest possible solutions to identifiable Nigerian environmental, moral and value problems.

Course Contents
Nigerian history, culture and art up to 1800 (Yoruba, Hausa and Igbo peoples and culture; peoples and culture of the ethnic minority groups). Nigeria under colonial rule (advent of colonial rule in Nigeria; Colonial administration of Nigeria). Evolution of Nigeria as a political unit (amalgamation of Nigeria in 1914; formation of political parties in Nigeria; Nationalist movement and struggle for independence). Nigeria and challenges of nation building (military intervention in Nigerian politics; Nigerian Civil War). Concept of trade and economics of self-reliance (indigenous trade and market system; indigenous apprenticeship system among Nigeria people; trade, skill acquisition and self-reliance). Social justices and national development (law definition and classification. Judiciary and fundamental rights. Individual, norms and values (basic Nigeria norms and values, patterns of citizenship acquisition; citizenship and civic responsibilities; indigenous languages, usage and development; negative attitudes and conducts. Cultism, kidnapping and other related social vices). Re-orientation, moral and national values (The 3R's – Reconstruction, Rehabilitation and Re-orientation; Re-orientation Strategies: Operation Feed the Nation (OFN), Green Revolution, Austerity Measures, War Against Indiscipline (WAI), War Against Indiscipline and Corruption(WAIC), Mass Mobilization for Self-Reliance, Social Justice and Economic Recovery (MAMSER), National Orientation Agency (NOA). Current socio-political and cultural developments in Nigeria.

BIO 101: General Biology I   **(2 Units C: LH 30)**

Learning Outcomes

At the end of lectures in Plant Biology, students should be able to:
1. explain cell structure and organisations;
2. summarise functions of cellular organelles;
3. characterise living organisms and state their general reproduction;
4. describe the interrelationship that exists between organisms;
5. discuss the concept of heredity and evolution; and
6. enumerate habitat types and their characteristics.

Course Contents

Cell structure and organisation. Functions of cellular organelles. Characteristics and classification of living things. Chromosomes, genes their relationships and importance. General reproduction. Interrelationships of organisms (competitions, parasitism, predation, symbiosis, commensalisms, mutualism, saprophytism); heredity and evolution (introduction to Darwinism and Lamarkism. Mendelian laws. Explanation of key genetic terms), elements of ecology and types of habitats.

BIO 102: General Biology II   **(2 Units C: LH 30)**

Learning Outcomes

At the end of the lectures in Introductory Ecology, students should be able to:
1. list the characteristics, methods of identification and classification of viruses, bacteria and fungi;
2. state the unique characteristics of plant and animal kingdoms;
3. describe ecological adaptations in the plant and animal kingdom;
4. give a summary of the physiology of plants and animals;
5. explain nutrition, respiration, excretion and reproduction in plants and animals; and
6. describe growth and development in plants and animals.

Course Contents

Basic characteristics, identification and classification of viruses, bacteria and fungi. A generalised survey of the plant and animal kingdoms based mainly on the study of similarities and differences in the external features. Ecological adaptations. Briefs on physiology to include nutrition, respiration, circulatory systems, excretion, reproduction, growth and development.

BIO 107: General Biology Practical I   **(1 Unit C: PH 45)**

Learning Outcomes

At the end of the course, students should be able to:
1. outline common laboratory hazards;
2. provide precautions on laboratory hazards;
3. state the functions of the different parts of microscope;
4. use the microscope and describe its maintenance;
5. draw biological diagrams and illustrations; and
6. apply scaling and proportion to biological diagrams.

Course Contents

Common laboratory hazards: prevention and first aid; measurements in biology; uses and care of microscope: compound and dissecting microscope. Biological drawings and illustration, scaling, accuracy and proportion; use of common laboratory apparatus and laboratory experiments designed to illustrate the topics covered in BIO 101.

BIO 108: General Biology Practical II   (1 Unit C: LH 45)

Learning Outcomes
At the end of the course, students should be able to:
1. describe the anatomy of flowering plants;
2. differentiate types of fruit and seeds;
3. state ways of handling and caring for biological wares;
4. describe the basic histology of animal tissues; and
5. identify various groups in the animal kingdom.

Course Contents

Anatomy of flowering plants, primary vegetative body: stem, leaf and root to show the mature tissues namely parenchyma, collenchyma, sclerenchyma, xylem and phloem. Types of fruits and seeds. Care and use of dissecting kits and other biological wares. Dissection and general histology of animal tissues based on vertebrate forms. Morphology and functions of epithelial, muscular, nervous and connective tissues. Examination of various groups of lower invertebrates under microscopes, identification of various groups of organisms in Animal Kingdom. And any experiment designed to emphasise the practical aspects of topics in BIO 102

CHM 101: General Chemistry I   (2 Units C: LH 30)

Learning Outcomes
At the end of this course, the students should be able to:
1. define atom, molecules and chemical reactions;
2. discuss the modern electronic theory of atoms;
3. write electronic configurations of elements on the periodic table;
4. rationalise the trends of atomic radii, ionization energies, electronegativity of the elements based on their position in the periodic table;
5. identify and balance oxidation – reduction equation and solve redox titration problems;
6. draw shapes of simple molecules and hybridised orbitals;
7. identify the characteristics of acids, bases and salts, and solve problems based on their quantitative relationship;
8. apply the principles of equilibrium to aqueous systems using le chatelier's principle to predict the effect of concentration, pressure and temperature changes on equilibrium mixtures;
9. analyse and perform calculations with the thermodynamic functions, enthalpy, entropy and free energy; and
10. determine rates of reactions and its dependence on concentration, time and temperature.

Course Contents

Atoms, molecules, elements and compounds and chemical reactions. Modern electronic theory of atoms. Electronic configuration, periodicity and building up of the periodic table. Hybridisation and shapes of simple molecules. Valence Forces; Structure of solids. Chemical equations and stoichiometry; Chemical bonding and intermolecular forces, kinetic theory of matter. Elementary thermochemistry; rates of reaction, equilibrium and thermodynamics. Acids, bases and salts. Properties of gases. Redox reactions and introduction to electrochemistry. Radioactivity.

CHM 102: General Chemistry II   (2 Units C: LH 30)

Learning Outcomes

At the end of this course, the students should be able to:
1. state the importance and development of organic chemistry;
2. define fullerenes and its applications;
3. discuss electronic theory;
4. determine the qualitative and quantitative of structures in organic chemistry;
5. state rules guiding nomenclature and functional group classes of organic chemistry;
6. determine rate of reaction to predict mechanisms of reaction;
7. identify classes of organic functional group with brief description of their chemistry;
8. discuss comparative chemistry of group 1a, iia and iva elements; and
9. describe basic properties of transition metals.

Course Contents

Historical survey of the development and importance of Organic Chemistry; Fullerenes as fourth allotrope of carbon. uses as nanotubules. nanostructures. nanochemistry. Electronic theory in organic chemistry. Isolation and purification of organic compounds. Determination of structures of organic compounds including qualitative and quantitative analysis in organic chemistry. Nomenclature and functional group classes of organic compounds. Introductory reaction mechanism and kinetics. Stereochemistry. The chemistry of alkanes, alkenes, alkynes, alcohols, ethers, amines, alkyl halides, nitriles. Aldehydes, ketones, carboxylic acids and derivatives. The Chemistry of selected metals and non-metals. Comparative chemistry of group IA, IIA and IVA elements. Introduction to transition metal chemistry.

CHM 107: General Chemistry Practical I   (1 Unit C: PH 45)

Learning Outcomes

At the end of this course, the students should be able to:
1. state the general laboratory rules and safety procedures;
2. collect scientific data and correctly carrying out chemical experiments;
3. identify the basic glassware and equipment in the laboratory;
4. identify the differences between primary and secondary standards;
5. perform redox titration;
6. recording observations and measurements in the laboratory notebooks; and
7. analyse the data to arrive at scientific conclusions.

Course Contents

Laboratory experiments designed to reflect topics presented in courses CHM 101 and CHM 102. These include acid-base titrations. qualitative analysis. redox reactions. gravimetric analysis. data analysis and presentation.

CHM 108: General Chemistry Practical II   (1 Unit C: PH 45)

Learning Outcomes

At the end of this course, the students should be able to:
1. identify the general laboratory rules and safety procedures;
2. collect scientific data and correctly carrying out chemical experiments;
3. identify the basic glassware and equipment in the laboratory;
4. identify and carry out preliminary tests which includes ignition, boiling point, melting point, test on known and unknown organic compounds;
5. perform solubility tests on known and unknown organic compounds;
6. conduct elemental tests on known and unknown compounds; and
7. conduct functional group/confirmatory test on known and unknown compounds which could be acidic / basic / neutral organic compounds.

Course Contents

Continuation of CHM 107. Additional laboratory experiments to include functional group analysis, quantitative analysis using volumetric methods.

MTH 101: Elementary Mathematics I (Algebra and Trigonometry) (2 Units C: LH 30)

Learning Outcomes

At the end of this course students should be able to:
1. explain basic definition of Set, Subset, Union, Intersection, Complements and use of Venn diagrams;
2. solve quadratic equations;
3. Solve trigonometric functions;
4. identify various types of numbers; and
5. solve some problems using Binomial theorem.

Course Contents

Elementary set theory, subsets, union, intersection, complements, venn diagrams. Real numbers, integers, rational and irrational numbers. Mathematical induction, real sequences and series. Theory of quadratic equations. Binomial theorem. Complex numbers. Algebra of complex numbers. The Argand diagram. De-Moivre's theorem, nth roots of unity. Circular measure, trigonometric functions of angles of any magnitude, addition and factor formulae.

PHY 101: General Physics I (Mechanics)   (2 Units C: LH 30)

Learning Outcomes

At the end of this course, the students should be able to:

1. identify and deduce the physical quantities and their units;
2. differentiate between vectors and scalars;
3. describe and evaluate motion of systems on the basis of the fundamental laws of mechanics;
4. apply newton's laws to describe and solve simple problems of motion;
5. evaluate work, energy, velocity, momentum, acceleration, and torque of moving or rotating objects;
6. explain and apply the principles of conservation of energy, linear and angular momentum;
7. describe the laws governing motion under gravity; and
8. explain motion under gravity and quantitatively determine behaviour of objects moving under gravity.

Course Contents

Space and time. units and dimension. Vectors and Scalars. Differentiation of vectors: displacement. velocity and acceleration. kinematics. Newton laws of motion (Inertial frames. Impulse. force and action at a distance. momentum conservation). Relative motion. Application of Newtonian mechanics. Equations of motion. Conservation principles in physics. Conservative forces. Conservation of linear momentum. Kinetic energy and work. Potential energy. System of particles. Centre of mass. Rotational motion. Torque. vector product. Moment. Rotation of coordinate axes and angular momentum. Polar coordinates. conservation of angular momentum. Circular motion. Moments of inertia. gyroscopes and precession. Gravitation: Newton's Law of Gravitation. Kepler's Laws of Planetary Motion. Gravitational Potential Energy. Escape velocity. Satellites motion and orbits.

PHY 102: General Physics II (Electricity & Magnetism)   (2 Units C: LH 30)

Learning Outcomes

At the end of this course, the students should be able to:

1. describe the electric field and potential, and related concepts, for stationary charges;
2. calculate electrostatic properties of simple charge distributions using Coulomb's law, Gauss's law and electric potential;
3. describe and determine the magnetic field for steady and moving charges;
4. determine the magnetic properties of simple current distributions using Biot-Savart and Ampere's law;
5. describe electromagnetic induction and related concepts, and make calculations using Faraday and Lenz's laws;
6. explain the basic physical of Maxwell's equations in integral form;
7. evaluate DC circuits to determine the electrical parameters; and
8. determine the characteristics of ac voltages and currents in resistors, capacitors, and inductors

Course Contents

Forces in nature. Electrostatics; electric charge and its properties, methods of charging. Coulomb's law and superposition. electric field and potential. Gauss's law. Capacitance. Electric dipoles. Energy in electric fields. Conductors and insulators, current, voltage and resistance. Ohm's law and analysis of DC circuits. Magnetic fields. Lorentz force. Biot-Savart and Ampère's laws. magnetic dipoles. Dielectrics. Energy in magnetic fields. Electromotive force. Electromagnetic induction. Self and mutual inductances. Faraday and Lenz's laws. Step up and step-down transformers: Maxwell's equations. Electromagnetic oscillations and waves. AC voltages and currents applied to inductors, capacitors, resistance, and combinations.

PHY 107: General Practical Physics I   (1 Unit C: PH 90)

Learning Outcomes

At the end of this course, the students should be able to:
1. conduct measurements of some physical quantities;
2. make observations of events, collect and tabulate data;
3. identify and evaluate some common experimental errors;
4. plot and analyse graphs; and
5. draw conclusions from numerical and graphical analysis of data.

Course Contents

These introductory courses emphasise quantitative measurements. the treatment of measurement errors. and graphical analysis. A variety of experimental techniques should be employed. The experiments include studies of meters. the oscilloscope. mechanical systems. electrical and mechanical resonant systems. Light, Heat, viscosity and many others. covered in PHY 101 and PHY 102. However. emphasis should be placed on the basic physical techniques for observation. measurements. data collection. analysis and deduction.

PHY 108: General Practical Physics II   (1 Unit C: PH 45)

Learning Outcomes

At the end of this course, the student should be able to:
1. conduct measurements of some physical quantities;
2. make observations of events, collect and tabulate data;
3. identify and evaluate some common experimental errors;
4. plot and analyse graphs;
5. draw conclusions from numerical and graphical analysis of data; and
6. prepare and present practical reports.

Course Contents

This practical course is a continuation of PHY 107 and is intended to be taught during the second semester of the 100 level to cover the practical aspect of the theoretical courses that have been covered with emphasis on quantitative measurements. The treatment of measurement errors, and graphical analysis. However, emphasis should be placed on the basic physical techniques for observation, measurements, data collection, analysis and deduction.

STA 111: Basic Statistics   (2 Units C: LH 30)

Learning Outcomes
At the end of the courses, the students should be able to:
1. explain the basic concepts of descriptive statistics;
2. present data in graphs and charts;
3. differentiate between measures of location, dispersion and partition;
4. describe the basic concepts of skewness and kurtosis as well as their utility function in a given data set;
5. differentiate rates from ratio and how they are use;
6. compute the different types of index number from a given data set and interpret the output;
7. explain the differences between permutation and combination;
8. explain the concept of random variables and relate it to probability and distribution functions;
9. describe the basic distribution functions; and
10. explain the concept exploratory data analysis.

Course Contents
Statistical data: types, sources and methods of collection. Presentation of data: tables, chart and graphs. Errors and approximations. Frequency and cumulative distributions, measures of location, partition, dispersion, skewness and kurtosis. Rates, ratios and index numbers. Permutation and combination. Concepts and principles of probability, random variables, probability and distribution functions. Basic distributions: Binomial, geometric, Poisson, normal and sampling distributions and exploratory data analysis.

200 Level

GST 212: Philosophy, Logic and Human Existence   (2 Units C: LH 30)

Learning Outcomes
A student who has successfully gone through this course should be able to:
1. describe the basic features of philosophy as an academic discipline;
2. identify the main branches of philosophy & the centrality of logic in philosophical discourse;
3. state the elementary rules of reasoning;
4. distinguish between valid and invalid arguments;
5. think critically and assess arguments in texts, conversations and day-to-day discussions;
6. critically asses the rationality or otherwise of human conduct under different existential conditions;
7. develop the capacity to extrapolate and deploy expertise in logic to other areas of knowledge; and
8. guide his or her actions, using the knowledge and expertise acquired in philosophy and logic.

Course Contents

Scope of philosophy; notions, meanings, branches and problems of philosophy. Logic as an indispensable tool of philosophy. Elements of syllogism, symbolic logic— the first nine rules of inference. Informal fallacies, laws of thought, nature of arguments. Valid and invalid arguments, logic of form and logic of content — deduction, induction and inferences. Creative and critical thinking. Impact of philosophy on human existence. Philosophy and politics, philosophy and human conduct, philosophy and religion, philosophy and human values, philosophy and character molding, and many others.

ENT 211: Entrepreneurship and Innovation   (2 Units C: LH 30)

Learning Outcomes

At the end of this course, students should be able to:

1. explain the concepts and theories of entrepreneurship, intrapreneurship, opportunity seeking, new value creation, and risk taking;
2. state the characteristics of an entrepreneur;
3. analyse the importance of micro and small businesses in wealth creation, employment, and financial independence;
4. engage in entrepreneurial thinking;
5. identify key elements in innovation;
6. describe stages in enterprise formation, partnership and networking including business planning;
7. describe contemporary entrepreneurial issues in Nigeria, Africa and the rest of the world; and
8. state the basic principles of e-commerce.

Coursed Contents:

Concept of Entrepreneurship (Entrepreneurship, Intrapreneurship/Corporate Entrepreneurship,). Theories, Rationale and relevance of Entrepreneurship (Schumpeterian and other perspectives, Risk-Taking, Necessity and opportunity-based entrepreneurship and Creative destruction). Characteristics of Entrepreneurs (Opportunity seeker, Risk taker, Natural and Nurtured, Problem solver and change agent, Innovator and creative thinker). Entrepreneurial thinking (Critical thinking, Reflective thinking, and Creative thinking). Innovation (Concept of innovation, Dimensions of· innovation, Change and innovation, Knowledge and innovation). Enterprise formation, partnership and networking (Basics of Business Plan, Forms of business ownership, Business registration and Forming alliances and join ventures). Contemporary Entrepreneurship Issues (Knowledge, Skills and Technology, Intellectual property, Virtual office, Networking). Entrepreneurship in Nigeria (Biography· of inspirational Entrepreneurs, Youth and women entrepreneurship, Entrepreneurship support institutions, Youth enterprise networks and Environmental and cultural barriers to entrepreneurship). Basic principles of e-commerce.

ANA 201: Anatomy of Upper & Lower Limbs   **(2 Units C: LH 15; PH 45)**

Learning Outcomes
At the end of the course, students should be able to:
1. define fundamental anatomical terminology and discuss the anatomical position;
2. describe the anatomy of the musculoskeletal system, including the axial skeleton; appendicular skeleton, appendicular and axial muscles, and arthrology;
3. describe the general features of the bones of the upper and lower limbs;
4. identify the major muscles of the upper and lower limbs;
5. explain the types and structure of the joints of the upper and lower limbs;
6. correlate between the attachment of the muscles and their functions on the different joints;
7. identify the major nerves of the upper and lower limbs;
8. describe the functional components of each of the major nerves and its distribution;
9. identify and describe the course of the major superficial veins of the upper and lower limbs; and
10. name the major arteries of the upper and lower limbs.

Course Contents
Descriptive terms, plans and terms of relationship of the human body, terms of comparison, attachment of muscles, types of muscles, movements of joints. Osteology, Principles of Kinesiology, general organisation of body systems. Cutaneous innervations of upper limb. Pectoral region. Breast. Axilla. Shoulder region. Arm and cubital fossa. Flexor Compartment of forearm. Extensor compartment of forearm. Hand. Venous and lymphatic drainage of the upper limb. Applied anatomy of nerves. Blood supply of the upper limb. Cutaneous innervation of lower limb. Femoral triangle. Adductor canal and medial side of the thigh. Gluteal region. Back of the thigh, popliteal fossa. Extensor compartment of the leg and dorsum of the foot. Peroneal and flexor compartment of the leg. Sole of the foot, arches of the foot. Mechanism of walking. Venous and lymphatic drainage of the Lower limb. Applied anatomy of nerve and blood supply of lower limb.

HIM 211: Introduction to Health Information Science   **(2 Units C: LH 30)**

Learning Outcomes
At the end of the course, the students should be able to;
1. extensively explain Health Information Science;
2. distinguish between data, information, knowledge and wisdom;
3. describe the attributes of health information science;
4. explain the relationship between information science and other discipline in medical and allied health sciences;
5. describe information commodity as an economic good;
6. explain information constraint theories and models of information seeking behaviours;
7. elucidate health information processing methods; and
8. explain data operations in automated health information management system.

Course Contents

Definition of health information science. Distinguish between data, information knowledge and wisdom. Attribute of health information, relationship of information science to other discipline in medical and allied health sciences. Information commodity as an economic good. Information perception constraint theory, Shannon and weaver's theory of information , Brooke's Model of Information, Melvin Defleur's. Model of Information Communication, Ellis Model of Information Seeking Behaviours, Wilson Model of Information Seeking Behaviours. Health information processing methods, technology acceptance theory, reason actions theory, data operations in automated health information management system.

HIM 212:   Health Records Management I   (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. explain numbering in health records; describe the types and methods of assigning numbers;
2. identify and discuss the types of equipment used and control of numbering system conversion;
3. define filling system and explain its objectives;
4. discuss types and methods of filing system as well as filing control;
5. describe master patient index in the unit system, its purpose, content and arrangement;
6. explain record retention, factors influencing retention and disposition of health records; and
7. appreciate microfilming of health records, objectives of microfilming, processing, design, selection, advantages and disadvantages of microfilming.

Course Contents

Numbering system in health records, methods of numbering system, types and methods of assigning numbers. Types of equipment used and control of numbering system conversion from one system to another and relationship of numbering to filing. Define filing system and state its objectives, types and methods of filing system. Filing control in relation to: requisition and charged-out system, colour coding of records folders, access incomplete records, checking location, physical facilities in the file area, safety, organisational patterns, other file rules and procedures. Conversion from one filling system to another, Transportation of records, equipment and supplies and factors affecting choice. Definition of master patient index in the unit system, master patient index: purpose and content, filling methods, filling equipment, alphabetical index guides, automation of patient index, control of patient index and arrangement of master file. Record retention, factor influencing retention and disposition of health records, health records retention policies, methods of destruction of health records.
Microfilming of health records: definition of microfilm, objectives of records microfilming, uses of microfilm in the hospital records keeping, microfilm processing, steps in designing microfilm system, selecting microfilm for use in hospital records, process of preparing records for microfilming and filling the records including advantages and disadvantages in health records.

HIM 221: Introduction to Information Technology and Organisational Information Security (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. explain management and operations of different multimedia formats;
2. describe the development and use of database systems;
3. demonstrate practical skills on spreadsheet, graphics and PowerPoint presentation;
4. discuss basic concepts and technologies of information security;
5. explain personnel/organisational skills for information security managers and officers; and
6. evaluate information security personnel and non-security information technology personnel.

Course Contents

Management and operations of different multimedia formats; practical exercise in word processing, software packages, Internet surfing and downloading information; micro-form technology; practical exercise on CD-ROM technology; practical hands-on; overhead projector, graphics, power point presentations; development and use of database systems. Introduction to spreadsheet. Basic concepts and technologies of information security. Personnel / organisational skills for information security managers and officers: staffing, training, certification, incentives. Evaluation of information security personnel, non-security information technology personnel and many others. Organisational development rated to security awareness, threats and responses; and ethics/ codes of behaviour in information security, security in networked environments.

HIM 222: Knowledge Management in Health Information System (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students shoulds be able to:
1. describe the history and current status of knowledge management;
2. describe the differences between information and knowledge;
3. explain key management issues consideration and influence of knowledge management of change and organisational effectiveness; and
4. effectively participate in management operations and identify sources of knowledge for health workers.

Course Contents

History, definition and current status of knowledge management. Differences between information and knowledge. Key management issues consideration and influences of knowledge management of change and organisational effectiveness. Planning staff consultancy and participation in knowledge management. Skills requirements of knowledge management operations and evaluation of knowledge management. Sources of knowledge to health workers.

HIM 223: Statistical Methods in Health Information Management I (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. explain the entire concept of index number and be able to apply it;
2. extensively discuss correlation analysis, its uses, types, nature and meaning;
3. explain correlation coefficient, coefficient of determination meaning and interpretation with reference to simple correlation, partial correlation and multiple correlations;
4. mathematically express regression analysis (its meaning and types);
5. extensively explain time analysis (meaning, concepts, methods of measuring trend and methods of determining seasonal indices);
6. describe probability; definition, measurement, permutations and combinations, distribution. mathematical expectations and their applications in health information management;
7. explain estimation and significance testing;
8. define confidence interval; and
9. effectively describe hypothesis, its error, level of significance and test concerning population means and proportion including small and large samples.

Course Contents
Index numbers: meaning and uses of index numbers, problems of construction index numbers, un-weighted index- simple aggregate index, mean of price relatives. Weighted index numbers – use of Laspeyre, Paasche, Fisher Ideal, Marshal Edgeworth. Correlation analysis: meaning of correlation, types of correlation (simple, partial and multiple correlation), nature of correlation (positive, zero and negative) meaning of correlation coefficient and its determination and interpretation with reference to simple correlation, partial correlation and multiple correlation. Spearman's and Kendall Tau Rank Correlation Coefficient, Spearman's Product Moment Correlation Coefficient. Coefficient of determination (meaning and interpretation)
Regression analysis: meaning of regression, types of regression simple, multiple and exponential regression. Simple or linear regression, exponential regression, multiple regression and coefficient of determination.
Time analysis: meaning of time series, basic component, methods of measuring trend (graphical, moving averages, least squares, semi- averages, method for determining seasonal indices (average percentage, moving averages link relative, ratio trend and smoothening. Probability: definition of probability, measurement (addition and multiplication laws applied to mutually exclusive, independent and conditional events) mathematical expectation, permutations and combinations, probability distribution – binomial, hyper geometric, multinomial, Poisson, normal and their applications in health information management. Estimate and significance testing. Define confidence interval, confidence interval for population mean and proportion based on large and small samples. Meaning of hypothesis, type I and type II error, level of significance, test concerning population means and proportions including small and large samples.

HIM 224: Disease Classification, Clinical Coding, Indexing and Abstracting (2 Units C: LH 15; PH 45)

Learning Outcomes
At the end of the course, the students should be able to:
1. appreciate the history of diseases classification, basis and purpose of disease classification;
2. 'define data classification and explain its aims and objectives;
3. explain the general principles of international classification of diseases process structure of ICD, special coding pattern in the ICD and dual classification of certain diagnostic statements in the ICD;
4. extensively explain the numbering systems of the ICD, the 3-digit and optional 5-digit categories of ICD-9;
5. describe the classification of industrial accidents, the twenty-one chapters of ICD-10 and its arrangements;
6. explain coding, its purpose, tools and procedures as well as selection of conditions for both diagnostic and operational procedures;
7. describe the structure of classification system, indexing, types, methods and uses of index; and
8. discuss traditional and computerized approaches to indexing, abstracting, thesaurus construction and maintenance.

Course Contents
History of diseases classification. Basis and purpose of disease classification. Definition of data classification, aims and objectives of data classification. General principles of International Classification of Diseases (ICD) process. Structure of ICD and special coding pattern in the ICD, dual classification of certain diagnostic statements in the ICD. The numbering system of the ICD, the three digit categories –ICD-9, the operational fifth digits – ICD -9 and the Alphanumeric of the ICD-10, Seventeen chapters of the ICD-9, Supplementary classification of the ICD 9 (E- codes, V-codes, M- codes). Classification of industrial accidents and many others. the twenty-one chapters of ICD-10 and its arrangement. Measuring coding and coding procedure, procedures in surgical operations (major and minor). The structure of the surgical index method of the KD- 9CM Vol. 3 (procedure class) and ICD-10 Vol. 3. The procedure for coding surgical operations and other procedures, the similarities and differences between ICD 9CM Vol. 3 and |ICD 10pcs and ICD -10 Vol. 3, tools needed for coding surgical operations. Define index purpose for indexing uses of disease and operation index, information deeded for index cards. Indexing system: design index cards, storage. Maintenance and retention simple and cross indexing system, multiple card system, methods of monitoring discharged patients' records. Code diseases and surgical procedures, abstract and index: diseases and surgical procedure, external causes of injuries (Encode), factors influencing health status and contract with health services (V code), morphology and neoplasm. Traditional and computerised approaches to indexing, abstracting, thesaurus construction and maintenance are explained. The nature and structure of indexes, indexing and editing procedures, types of indexes, index-evaluation and professionalism construction of abstract technique

300 Level courses

GST 312: Peace and Conflict Resolution (2 Units C: LH 30)

Learning Outcomes

At the end of the course, students should be able to:

1. `analyse the concepts of peace, conflict and security;
2. list major forms, types and root causes of conflict and violence;
3. differentiate between conflict and terrorism;
4. enumerate security and peace building strategies; and
5. describe roles of international organisations, media and traditional institutions in peace building.

Course Contents

Concepts of Peace, Conflict and Security in a multi-ethnic nation. Types and Theories of Conflicts: Ethnic, Religious, Economic, Geo-political Conflicts; Structural Conflict Theory, Realist Theory of Conflict, Frustration-Aggression Conflict Theory. Root causes of Conflict and Violence in Africa: Indigene and settlers Phenomenon; Boundaries/boarder disputes; Political disputes; Ethnic disputes and rivalries; Economic Inequalities; Social disputes; Nationalist Movements and Agitations; Selected Conflict Case Studies – Tiv-Junkun; Zango Kartaf, Chieftaincy and Land disputes and many others. Peace Building, Management of Conflicts and Security: Peace & Human Development. Approaches to Peace & Conflict Management --- (Religious, Government, Community Leaders and many others). Elements of Peace Studies and Conflict Resolution: Conflict dynamics assessment Scales: Constructive & Destructive. Justice and Legal framework: Concepts of Social Justice; The Nigeria Legal System. Insurgency and Terrorism. Peace Mediation and Peace Keeping. Peace & Security Council (International, National and Local levels) Agents of Conflict resolution – Conventions, Treaties Community Policing: Evolution and Imperatives. Alternative Dispute Resolution, ADR. Dialogue b). Arbitration, c). Negotiation d). Collaboration and many others. Roles of International Organisations in Conflict Resolution. (a). The United Nations, UN and its Conflict Resolution Organs. (b). The African Union & Peace Security Council (c). ECOWAS in Peace Keeping. Media and Traditional Institutions in Peace Building. Managing Post-Conflict Situations/Crisis: Refugees. Internally Displaced Persons, IDPs. The role of NGOs in Post-Conflict Situations/Crisis.

ENT 312: Venture Creation (2 Units C: LH 15; PH 45)

Learning Outcomes

At the end of this course, students, through case study and practical approaches, should be able to:

1. describe the key steps in venture creation;
2. spot opportunities in problems and in high potential sectors regardless of geographical location;
3. state how original products, ideas, and concepts are developed;
4. develop business concept for further incubation or pitching for funding;
5. identify key sources of entrepreneurial finance;
6. implement the requirements for establishing and managing micro and small enterprises;
7. conduct entrepreneurial marketing and e-commerce;

8. apply a wide variety of emerging technological solutions to entrepreneurship; and
9. appreciate why ventures fail due to lack of planning and poor implementation.

Course Contents
Opportunity Identification (Sources of business opportunities in Nigeria, Environmental scanning, Demand and supply gap/unmet needs/market gaps/Market Research, Unutilised resources, Social and climate conditions and Technology adoption gap). New business development (business planning, market research). Entrepreneurial Finance (Venture capital, Equity finance, Micro finance, Personal savings, Small business investment organisations and Business plan competition). Entrepreneurial marketing and e-commerce (Principles of marketing, Customer Acquisition & Retention, B2B, C2C and B2C models of e-commerce, First Mover Advantage, E-commerce business models and Successful E-Commerce Companies,). Small Business Management/Family Business: Leadership & Management, Basic book keeping, Nature of family business and Family Business Growth Model. Negotiation and Business communication (Strategy and tactics of negotiation/bargaining, Traditional and modern business communication methods). Opportunity Discovery Demonstrations (Business idea generation presentations, Business idea Contest, Brainstorming sessions, Idea pitching). Technological Solutions (The Concept of Market/Customer Solution, Customer Solution and Emerging Technologies, Business Applications of New Technologies - *Artificial Intelligence (AI), Virtual/Mixed Reality (VR), Internet of Things (IoTs), Blockchain, Cloud Computing, Renewable Energy* and many others. Digital Business and E-Commerce Strategies).

HIM 311: Hospital Official Statistics   (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to;
1. appreciate and extensively explain the concept of hospital statistics (definition, history and components);
2. express in-depth knowledge on basic technologies for reporting hospital activities and process of obtaining hospital statistics data;
3. expound the types of hospital admission and process of obtaining hospital statistics data;
4. discuss basic terminologies for reporting hospital activities;
5. describe requirements for obstetrics and pre-natal care, uses of obstetrics and pre-natal data;
6. debate essential hospital data process of hospital data presentation and methods of hospital data presentation;
7. report generation on method of hospital data presentation and hospital official statistics in health; and
8. describe problems in collection, analysis, dissemination and use of official statistics in health.

Course Contents

Definition of hospital statistics, history of hospital statistics and components of hospital statistics. Types of hospital admission process of obtaining hospital statistics data. Basic terminologies for reporting hospital activities such as bed complement, occupied bed days, vacant bed days, through put, turnover interval and average length of stay. Computation of percentages and rates: define rates, types of rates- fertility, morbidity, mortality and many others uses of rate. Definition and uses of percentage occupancy. Explanation and uses of ratios, proportions, average and many others. definition and types of events such as treatment, counselling, advises, operation, ancillary cure and many others. episode of care and type of transfers. Reporting requirements for obstetrics and pre-natal care, uses of obstetrics and pre-natal data. Discharge analysis of hospital services. Definition and essentials of hospital data process of hospital data presentation and methods of hospital data presentation. Report generation and methods of hospital data presentation. Report generation on hospital official statistics in health. Problems in collection, analysis, dissemination and use of official statistics in health. Statistical organisations: national and international.

HIM 312: Policy, Legal and Ethics in Health Information Management (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. comprehend and discuss organisation context within health information managers' practice;
2. describe information as a public/private good, intellectual property;
3. explain privacy, confidentiality, information liability, and freedom of information act, access to information;
4. have in-depth knowledge of elementary labor laws, rules and regulations on organisational staff matters;
5. discuss extensively public health law in Nigeria as well as Nigerian law system and structure;
6. comprehend concepts of ethics, law, values, morals, rules and regulations. sources of ethics, law, and morals;
7. explain confidentiality and security of health information;
8. describe principles and code of ethics for health information management practitioners;
9. identify health records requirements and entries. procedures for reporting and release of health information; and
10. explain the concept of consent for procedures in medicine.

Course Contents

Select concepts, processes, and issue related to the organisation contexts within which health information managers' practice. Topics include information as public/ private good, intellectual property, privacy, confidentiality, information liability, and freedom of information act, access to information, elementary labour laws, rules and regulations on organisational staff matter, and public health laws in Nigeria. Information policy, copyright, and ethical issues. Concepts of Ethics, law, values, morals, rules and regulations. Sources of Ethics, Law, and Morals and many others. Concepts of Privacy, Confidentiality and Security of Health Information. Principles and code of ethics for Health Information Management practitioners. The Nigerian Law System and Structure. Health Records requirements and entries. Procedures for reporting and release of Health Information. Concept of consent for procedures in Medicine.

HIM 313: Database Construction and Management in Health Information System (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:

1. describe file management systems, information retrieval systems and database management system;
2. explain types of database system structure, system analysis for database; requirements analysis and requirements specification;
3. discuss system design for database: conceptual and physical database design;
4. identify query languages, database management issues such as data integrity, data security, backup and recovery as well as database administration; and
5. practically demonstrate the application of DBMS.

Contents Contents

Introduction to the database approach: file management systems, information retrieval systems and database management system. Types of database system structure. System analysis for database; requirements analysis and requirements specification. System design for database: conceptual and physical database design. Query languages, database management issues: data integrity, data security, backup and recovery and database administration.

HIM 314: Statistical Methods in Health Information Management I (2 Units: C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:

1. explain the role of statistics in human biology medicine and health information management;
2. state and mathematically express analysis of variance: one-way, classification, test for equality of several variances, multiple range test; two-way classification;
3. describe how to test for independence, runs and sign test; and
4. explain and distinguish between different test sample methods.

Course Contents

Role of statistics in Human Biology Medicine and Health Information Management. Analysis of variance: one-way, classification, test for equality of several variance, multiple range test; two-way, classification (single observation per cell) two – way classification (several observation in one cell). Test for independence, runs and sign test, Wilcoxon two-sample test, Wilcoxon test for paired observations, goodness of fit test, Kolmogrov-sminov one/two sample test, fisher exact probability test. The Friedman test, the Kruskal-walls test, the Mann-Witney test.

HIM 315: Health Records Management II   (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. discuss health records management, forms of Health Records, forms management;
2. explain Patient's records as a legal document;
3. define the principles of file organisation;
4. identify methods of file organisation and hierarchies of information structure; and
5. debate budgeting for health records management.

Course Contents
Definition of health records management, forms of Health Records, forms management, files management, directives management, reports management, micrographics management and reprographics management, personnel management in health records office and medical archives, costing in health records management, purpose and effects of health insurance scheme on health records practice. Patient's records as a legal document such as property rights and ownership, custodian of the record, authorisations, signatories, and many others filing system, file design and organisation, file content (data element) and file review procedures, role of storage, media in file organisation. Principles of file organisation, methods of file organisation and hierarchies of information structure such as logical and physical, structural principles and elements, budgeting for health records management.

HIM 321: Health Care Financing, Insurance Principles and Programme   (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. possess ability to identify different sources of finance and its management;
2. explain health insurance and purpose of health insurance scheme;
3. appreciate the assumption of private health insurance;
4. compare and contrast private and government-sponsored health insurance;
5. describe diversity of voluntary medical care insurance plans under different sponsorships; and
6. discuss the scope of coverage and benefits of national health insurance scheme.
7. expound the decree of establishing the national health insurance scheme.

Course Contents
Definition of health care, meaning of finance, sources and management of health care finance, define health insurance, purpose of health insurance scheme. Assumption of private health insurance. Comparison of private and government-sponsored health insurance. Analysis of diversity of voluntary medical care insurance plans under different sponsorships, scope of coverage and benefits of national health insurance scheme, analysis and critique of National Health Insurance scheme, examination of decree establishing the National Health Insurance Scheme.

HIM 322: Fundamental of Medical Practice   **(2 Units C: LH 30)**

Learning Outcomes

At the end of the course, the students should be able to:

1. explain basic terms in medical practice and definitions of medical terminologies;
2. comprehend common terms in medical terminology;
3. discuss lay terms applicable to medicine;
4. describe disease causation and degeneration diseases process; and
5. explain the terms used for disease causes/symptomatology and common terminologies.

Course Contents

Basic terms in medical practice. Prefixes and suffixes in medical terms. Common terms in medical terminology. Homonyms synonyms and eponyms in medical terminology. Lay terms applicable to medicine. Basic definitions of medical terminologies. Disease causation and process. Degenerative diseases process. Causes and process of cellular growth changes. Common diagnostic abbreviations. Terms used for disease causes/symptomatology. Common terminologies.

HIM 323: Software Applications to Health Information Management (2 Units: C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:

1. evaluate the various computer applications and their utilisation in a healthcare environment;
2. describe the use and competencies in application software; and
3. explain electronic Health Records compatible software in health data management.

Course Contents

Evaluation of various computer applications and their utilisation in a healthcare environment. Use and competencies in application software such as EPI Info, EPI Data, Health Mapper, SPSS, Microsoft Access and many others. Electronic Health Records compatible software in health data management.

400 Level courses

HIM 411: Computer Applications in Health Information System (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:

1. appreciate the review and expansion of telecommunications and its related technologies;
2. describe the history of the development of network and explain why network fails;
3. describe networking configurations trade-offs between telecommunication and storage in system design;
4. differentiate between physical and logical configuration;
5. discuss compatibility and standard gateways, interconnections, economics of networking, data flows and privacy; and
6. elucidate the governance and policies relating to networks copyright and downloading.

Course Contents
Review and expansion of telecommunications and its related technologies, telephone, modems , telex, videotext, tele text,VANs packet switching, LANs satellite, microwave, fiber optics, and many others. History of the development of network , and why networks fails , networking configurations (star, ring, distributed and many others). Trade-offs between telecommunication and storage in system design, physical; vs. logical configuration, compatibility and standard gateways and interconnections, economics of networking, data flows, privacy and many others. Governance and policies relating to networks copyright, downloading and many others.

HIM 412: Principles of Information Retrieval System I   (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. describe information system for the storage and retrieval of unstructured and structured information;
2. examine information retrieval architectures, processes, retrieval models, query language, and methods of system evaluation; and
3. distinctively emphasise on internet-based services for storing and accessing information to be used in integrated application development.

Course Contents
Introduction to information system for the storage and retrieval of unstructured and structured information. Examines information retrieval architectures, processes, retrieval models, query language, and methods of system evaluation. Gives emphasis to internet-based services for storing and accessing information to be used in integrated application development.

HIM 413: Principles of Management in Health Information System (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. explain the nature of management and field of management;
2. debate the function of management, managing purpose and direction;
3. describe management theories and system theories;
4. describe human relation theory and contingency theories;
5. describe the foundation of organising, organisation and job design;
6. explain the human resources management;
7. describe change management and innovations;
8. describe the concept group and team work;
9. discuss job motivation, job satisfaction of employees, leadership communication and interpersonal skills; and
10. elucidate the dimension of control systems, graduating performance, organisational effectiveness and stress management.

Course Contents

The nature of management, the health information managers and management, the field of management, the functions of management, managing purpose and direction. Management theories; the classical, the behavioral school, the system theory, the human relations theory and the contingency theory. Foundation of organising, organisation and job design, human resources management, managing change and innovations, foundation of behavior, understanding group and team work, job motivation and job satisfaction of employees, leadership communication and interpersonal skills. Dimension of control systems, graduating performance, organisational effectiveness and managing stress.

HIM 414: Research Methods and Proposal Writing in Health Information Management (2 Units: C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. discuss the concept of research and its benefit to health information management;
2. describe the types of research;
3. identify the steps in the research process;
4. initiate, conduct and present a research project;
5. recognise the importance of ethics in research; and
6. explain the application of research findings to health information management.

Course Contents
Definitions of research, choosing a research topic in health information management, background to the study formulating statement of problems, stating the objectives of the study, stating research questions and formulation of hypotheses, writing significance of study, scope and limitation of study operational Definition of terms. Methods of surveying the literature, sources of information in project writing. Research designs population of study, sampling procedures and sample size. Design of research instruments, methods of validity and reliability of the research instruments, methods of data collection, data analysis, hypothesis testing using chi-squared (x^2), students "t" text, f- ratio test, normal distribution, analysis of variance and covariance, non-parametric statistics, correlation regression and time series analysis. Definition of Proposal writing, types of research proposal, Contents of Proposal writing, importance of research proposal, content of introductory section, general and specific objectives, statement of problems, justification for research, essential parts of literature proposal, contents of methodology, sampling techniques, various of data collection methods, data analysis and presentation, components of good work plan, cost analysis for proposed activities. Ciantt's method of writing work plan, referencing styles, work plan for the proposed activities, executive summary of the proposal or abstract.

HIM 460: Industrial Practice in Medical and Health Institutions   (4 Units C: PH 180)

Practical experience for maximum period of six months in approved medical and health institutions. Writing the Industrial Practice report.

500 Level

HIM 511: Data Communications and Telecommunications Networking (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. describe the general concept and evolution of telecommunications network;
2. describe transmission facilities, data encoding and data transmission techniques;
3. explain the convergence of computers and telecommunications, its transmission links, and procedures;
4. discuss logical and physical communication networks;
5. evaluate the performance of telecommunication systems;
6. appreciate network topologies and hardware;
7. address server operating systems;
8. explain policy issues association with distributed networks;
9. expound data structure in programming languages- debate basic structures for data representation (atomic, simple, complex) and storage allocation; and
10. discuss organisation methods, programming exercises involving implementation of different data structures.

Course Contents
General concept, evolution, telecommunications network, transmission facilities, data encoding, data transmission techniques, convergence of computers and telecommunications, transmission links and procedures: links, switched and leased line. Connections, point- to- point and multipoint broadcast, and asynchronous and synchronous transmission. Logical and physical communication networks, network evolution. Integrated digital network, customer interface, ISDN services and access, broadband ISDN, PABX, wireless communications. Cost modeling and analysis of telecommunication systems. Performance evaluation of telecommunication systems. Local and wide area computer networking including network topologies and hardware, packet switching, client/server architectures network protocols, and network server and applications. Address server operating systems. Management, security authentication, and policy issues association with distributed network. Data structure in programming languages, basic structures fir data representation atomic, simple complex, storage allocation: static, dynamic, linear data structures: strings, stack. Linear list, and many others: graph, sorting and searching algorithms, file structure: organisation methods, programming exercises involving implementation of different data structures.

HIM 512: Health Information System Analysis and Design   (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. apprehend the theoretical and practical examination of information system of information system analysis and design process;
2. explore techniques for accessing the need for technology;
3. define specifications and design process involving users;
4. describe design methods including social impact statements; and
5. discuss the analysis of standard designs and their application/operation in medicine and information management.

Course Contents

Theoretical and practical examination of information system analysis and design process. Explores techniques for assessing the need for technology, defining specifications, and involving users in the design process. Design methods include social impact statements, future scenarios, mock-ups, rapid prototyping, and field- testing. Analysis of standard designs; complete and incomplete block designs, Latin square nested, and other crossed classification design. Design efficiency, factorial experiments, confounding and fractional replication, response surface designs and evolutionary operation in medicine, information management, applications.

HIM 513: Public Relations in Health Information System   (2 Units C: LH 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. mark out with distinctness the history of public relations, public relation process and research;
2. explain communication media in public relations, state the functions of public relations officer;
3. elucidate the objectives of employee communications and communication methods;
4. debate publicity, crisis management and resolutions;
5. evaluate techniques of public relation; and
6. expound public relation financing.

Course Contents

Definition of public relations, the history of public relations public relations process, public relations research, communication media in public relations, functions of public relations officer, objectives of employee communications, communication methods, publicity, crisis management and resolution, evaluation techniques of public relations, public relations financing.

HIM 514: Health Records Management III   (2 Units C: LH, 30)

Learning Outcomes

At the end of the course, the students should be able to:
1. apprehend the models of health records management, life cycle and continuum models;
2. discuss classification of health records and filling system;
3. debate records retention and disposition schedule;

4. explain management technology and litigation support;
5. define planning and information system;
6. explain the purpose of health information system, planning process and planning problems of information system;
7. expound the purpose of health information system;
8. identify key participants in planning health information system;
9. process ability to develop a mission statement, set management goals and objectives;
10. develop strategies for change; describe risk analysis, trade-off analysis, feasibility studies and methods of financial health information system;
11. explain investment analysis of health information system and manpower planning in health information system; and
12. describe elements of development of a Health Information System.

Course Contents
Models of health records management, life cycle and continuum models, Health records classification and filling systems, records retention and disposition schedule, records centre management, records protection and security, records mapping, health records quality, Disposition of health records, reprographics and image management technology, and litigation support. Long term management of digital information, information communications in health records office electronic records keeping, enterprise and risk management, system analysis and design, metadata development, data preservation, and technology standards and policy development. Definition of planning and information system, purpose of health information system, planning process and planning problems of information system. Critical health information system issues, basic conceptual framework of health information system planning (Nolan's stage hypothesis). Identifying key participants in planning health information system, developing a mission statement, setting goals an objective, management by objectives, policy making, decision making process, conflict negotiation, and crisis management setting priorities, developing strategies for change, risk analysis, trade-off analysis, feasibility studies, methods of financial health information system, investment analysis of health information system, manpower planning in health information system. Elements of development of a health information system.

HIM 521: Economics and Marketing of Health Information (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. define economics of health information;
2. distinctively explain the marketing of health information;
3. explain the theories of national choice and utility applied to health information products/services;
4. discuss demands and uses of health information products;
5. debate the cost theory of health information models of value in health information products;
6. describe health information brokerage lifecycle development and market research; and
7. process ability to write proposal, communicate marketing as well as cost and pricing methods.

Course Contents

Definition of economics of health information, and marketing of health information, theories of national choice and utility applied to health information products/ services, demands and uses of health information products. Cost theory of health information models of value of health information products: exchange, use and expectation value, supply and demand functions of health information, marketing mix: price, product, place and promotion as applied to health information (products/ services), market aggregation and segmentation, consumer behavior. Health information life cycle development, market research, health information brokerage, writing proposal, marketing communication, costing and pricing methods.

HIM 522: Preservation and Conservation of Health Records   (2 Units C: LH 30)

Learning Outcomes

At of the course, the students should be able to:
1. expound preservation and conservation of health record;
2. describe the structure of paper-based records in health records department;
3. explain the de-acidification of paper-based health records;
4. expound electronic health records;
5. discuss security management in conservation of health records;
6. express restoration of health records, medical archives, and archives management;
7. identify the constraints to preservation and conservation of health records in Africa;
8. debate the principles of medical archives management;
9. describe the arrangement of records in medical archives;
10. comprehend disaster management, causes of disaster, benefits, objectives, and guideline for developing a response to disaster;
11. develop a disaster plan, prevent disaster in health record office;
12. identify the roles of insurance company in disaster management; and
13. discuss the role of communication and personnel training.

Course Contents

Definition of preservation and conservation of health records, the structure of paper and paper making, paper based records in health records department. The de-acidification of paper-based health records, non-aqueous record de-acidification of paper-based Health records. Permanence of material in making medical archive information materials. Deterioration of electronic health records, management of pests and microorganism in health records office. Security management of health records conservation of health records, restoration of health records and medical archives. Constraints to preservation and conservation of health records in Africa. Definition of medical archives and medical archives management, principles of medical achieves management: provenance and original order, users of medical archives, the role of medical archives manager/medical archivist, developing medical archives policy, plans and procedures, medical archives management facilities, space planning in medical archives, medical archives architectural design, acquisition of ,medical records, appraisal of health records, description of ,medical archives , accessioning and de-accessioning of health records, arrangement of records in the medical achieves, functions of medical reference archivist, significance of national Archives decree 30, 1992 to medical archives management an health records management, strategies for meeting demands for medical archives management, budgeting techniques and budgetary control for medical archives management. Staffing and career path development in

medical archives management. Definition of disaster and disaster management. State causes of disaster. Development of a disaster plan, benefits disaster plan, objectives of disaster plan, general guideline for developing a response to disasters, developing a disaster plan. Prevention of disasters in a health record office; disaster prevention activities, response to disaster, reaction to disaster, recovery from disasters, salvaging techniques if damaged materials in Health Records Office, role of insurance company in disasters management, role of communication and personnel training.

HIM 523: Hospital Management, Interdepartmental Structure and Organogram (2 Units C: LH 30)

Learning Outcomes
At the end of the course, the students should be able to:
1. expound hospital- contextual and policy issues;
2. identify the sources and management of hospital finances effective information system;
3. discuss resources management in the hospital;
4. describe labours laws including trade union legislation;
5. explain interdepartmental and intradepartmental structure;
6. explain hospital organogram; and
7. discuss activities and functions of administrative and functions of administrative and clinical directorates.

Course Contents
Hospital-contextual and policy issues, internal organisation and operation. Sources and management of hospital finances, effective information systems, human and logistic resources management in the hospital. Assessing and improving hospital performance, managing the quality of hospital services, labour laws including trade union legislation, conflict resolution and the promotion of industrial harmony in the hospital setting. Meaning of interdepartmental structure and intradepartmental structure. intradepartmental/interdepartmental structure in Primary health care, secondary care facilities and tertiary/specialist hospitals, how to Improve Interdepartmental Relations, conflict, importance of communication, misunderstanding, miscommunication. Meetings and Law of meetings. Hospital organogram: Definition, Components of Board of Management, their appointment, period of service, Directorates, Power and functions of Top Management, Chief/Medical Director, Director of Administration, Chairman, Medical Advisory committee/ Head of Clinical Services, Power and functions of HOD/HOU, Standing committees, ad hoc committees. Activities and Functions of Administrative and Clinical Directorates.

Minimum Academic Standards

Equipment
Public Adrees System, Projector, Light and Fans

HIM Demonstration room
10 copies of international classification Diseases (ICD) current edition
10 copies of international classification Diseases (ICD PCS) current edition

Staffing
Academic Staff
The guidelines on academic staff/student ratio 1:15 shall apply. There is need to have at least six (6) members of the academic staff. This will be in the ratio of **1:2:3**, which is translated into one coming from:

Professor/Reader	1
Senior Lecturers	2
Lecturers 1 and below	3 (at least two with Ph.D)
Laboratory Technologist	2
Laboratory Assistant	3
Laboratory Attendance	3
Secretary	1
Officer Assistants	1

Non Academic Staffs which includes
1 Qualified and Certified professional secretary
1 Clerical Staff
1 Office Assistant
1 CleanerMinimum standards for library

E-library
Functional computers
Internet connectivity
Current application packages

Classroom
Minimum of four class-rooms capable of accommodating at least fifty (50) students comfortably, with overhead projector for teaching.
A hall with a capacity to hold 150 -200 students during examination; adequate walk space of a meter wide between the roles.

Laboratory
A computer laboratory with a minimum of 50 computer systems/lap-tops with electronic health record software approved by the Board/Regulatory Council installed for teaching purpose. The computers must be connected to the internet with an overhead projector for teaching. A printer and photocopier provided for students use.
Model Health Record Demonstration Room for practical teaching (the room should have a health records management department setup)

Offices

Well-equipped office of the Head of Department with toilet, adequate infrastructure (such as refrigerator, television set, air conditioned), furniture and having adjoining office of the secretary well-equipped with computer set/laptop, printer, photocopying machine and projector. Separate offices for senior lecturers and above.

Offices for other lecturers, not more than two (2) in an office.

Classrooms, Laboratories and Office Spaces
Classroom

The standard requirement of $0.65m^2$ per full-time student should be maintained. Thus the minimum total space requirement for a faculty or department shall be the product of its total full time equivalent student enrolment (FTE) and the minimum space requirement per full-time equivalent i.e. (FTE) $0.65m^2$.

Office

In this respect, each academic staff should have an office space of at least 25 square metres taking into cognisance the status/cadre of the staff

In addition, there should be for the Faculty, a Dean's office and for each Department a Head of Department's office with attached offices for their supporting staff as specified below in m^2:

Professor's office	-	18.50
Head of Department's office	-	18.50
Tutorial teaching staff's office	-	13.50
Other teaching staff space	-	7.00
Technical staff space	-	7.00
Secretarial space	-	7.00
Staff research laboratory	-	16.50
Seminar Space/per student	-	1.85
Laboratory space (per student)	-	7.50