BABCOCK UNIVERSITY (BU)
SCHOOL OF PUBLIC AND ALLIED HEALTH
DEPARTMENT OF PUBLIC HEALTH
ILISHAN-REMO, OGUN STATE NIGERIA

CORE CORRICULUM MINIMUM ACADEMIC STANDARD (CCMASS)
B.Sc. Public Health

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Head of Department

Overview
The programme is to produce competent graduates that can serve as public health professionals in the country and globally by mastering the art and science of preventing diseases, protecting, and improving the health of communities and the population at large through research, promoting healthy lifestyle and surveillance to prevent infections and injuries while working in a team or as an individual. The degree is to be a four-year course and called Bachelor of Science in Public Health (BSc. Public Health).

Philosophy
The philosophy of the public health programme is to provide a broad-based academic, professional training and competence that reflect the emphasis on the current national preventive health care system and services.

Objectives
The objectives of the programme are to:

. enable students acquire competences in public health, carry out community diagnosis, immunisation, community mobilisation, health education and apply statistical and mathematical methods to the design and analysis of public health problems;

. enable students conduct biomedical research, nutrition and growth monitoring, environmental monitoring, and disease surveillance; and
. prepare public health professionals to take up effective leadership and management position in the community, workplaces, school settings and health centres/institutions.

Unique Features of the Programme

There are certain features which are unique to the revised programme, they are as follows:

. a total of seven (7) foundation courses and some core courses are similar with what is obtainable at Johns Hopkins University, which is ranked second in Public Health in the world;
. there are two (2) courses of community health practicum that students are going to attend, and a report will be presented in form of seminar and written for assessment;
. the students will be exposure to community health issues in accordance with various global socio-cultural settings; and
. the curriculum is structured in line with what is obtained in other Universities globally.

Employability Skills

At the end of the programme, graduates will have skills to:

. conduct public health research that can lead to finding a solution to health problem;
. conduct relevant literature search and review in their place of work whenever the need arises while conducting research ethically and behaving in a responsible manner and can summarise and present research findings;
. plan, implement and evaluate health program;
. they should be able to collect, clean, analyse and present data in such a way that it can be meaningful to an Intelligent Non-Expert (INE) as such can be employed by any research institution;
. work under minimal or no supervision and within datelines and

. work in a team to foster inter and intra sectorial collaboration

21st Century Skills

. Collaboration and team work
. Creativity and imagination
. Critical thinking
. Problem solving
. Flexibility and adaptability
. Information Literacy
. Leadership
. Civic literacy and citizenship
. Social responsibility
. Technology literacy
. Initiative.

Admission and Graduation Requirements

Admission Requirements

Four-Year Degree Programme

Candidates seeking admission into the programme must have at least five credit passes at the Senior Secondary School Certificate (SSCE/NECO/GCE) examinations in English Language, Mathematics, Biology or Health Science, Chemistry, Physics, or any other Science subject.

Direct Entry

For Direct Entry, candidates with National Diploma in Science Laboratory Technology, Diploma in Medical Laboratory Science, Diploma Dental Technology, Community Health Extension Workers, and other candidates such as Registered Nurses and Registered Midwives.

Five SSSC (or equivalent) credit passes in relevant subjects, two of which are at the Advanced Level.

Graduation Requirements

To be eligible for the award of the B.Sc. (Hons.) Degree in Public Health, the student must have completed and passed the prescribed courses totaling 148 credit units minimum for students that entered the programme through UTME and a minimum of 114 credit units for Direct Entry level students.

COURSE NUMBERS

100-199 ---------- 100 Level

200-299 ---------- 200 Level

300-399 ---------- 300 Level

400-499 ---------- 400 Level

LEVEL	GENERAL EDUCATION COURSES	DEPARTMENTAL COURSES	NON-DEPARTMENT COURSES	TOTAL
100	**10**	**4**	**23**	**37**
200	**11**	**16**	**8**	**35**
300	9	**30**	**0**	**39**
400	**3**	**34**	**0**	**37**
TOTAL	**33**	**84**	**31**	**148**

It is expected that within the 148 credits for graduation, every student graduating would have covered a minimum of 405 hours of concurrent field practicum during the semesters, research project and an internship period covering 300 hours during the summer preceding final year.

ASSOCIATE INSTITUTIONS

The following institutions provide logistic support for meeting special training needs and opportunities for field practicum of the Department of Public Health

- Association of Reproductive and Family Health:
- Livewell Initiative, Falomo Ikoyi, Lagos
- Emma Skipper Foundation, Abeokuta
- Lagos State University Teaching Hospital, Primary Health Care Unit, Lagos
- Society for Family Health, Lagos
- Ikenne Local Government Primary Health Care Department, Ogun State
- Sagamu Local Government Primary Health Care Department, Ogun State
- Primary Health Care and Disease Control Dept. of the Ogun State Ministry of Health, Abeokuta

- Primary Health Care and Disease Control Dept. of the Lagos State Ministry of Health, Ikeja
- Primary Health Care and Disease Control Dept. of the Oyo State Ministry of Health, Ibadan
- Primary Health Care and Disease Control Dept. of the Osun State Ministry of Health, Osogbo
- School of Hygiene, Eleyele, Ibadan
- School of Health Technology, Ijebu-Ode
- St. John Ambulance, Lagos
- Seventh Day Adventist Hospital. Ile-Ife, Osun State Nigeria
- Lakeshore Cancer Center Victoria Island, Lagos Nigeria

Global Course Structure

100 level B.Sc Public Health

Course Code	Course Title	Status	Semester 1st	Semester 2nd
BU-GST 011	Citizenship Orientation		0	
BU-GST 012	Citizenship Orientation			0
GST 111	Communication in English	C	2	
GST 112	Nigerian Peoples and Culture	C		2
BU- GST 105	Use of Library and Study Skills	C	2	
BU- GST 120	ICT Fundamentals & Office Productivity Management	C	1	
BU-GST 126	Life And Teachings of Christ The Messiah	C		3
BU-PHS 108	Introduction to Sociology and Anthropology	C		2
BU-PHS 116	Health Anthropology	C		2
BIO 101	General Biology I	C	2	
BIO 102	General Biology II	C		2
BIO 107	General Biology Practical I	C	1	
BIO 108	General Biology Practical II	C		1
CHM 101	General Chemistry I	C	2	
CHM 102	General Chemistry II	C		2
CHM 107	General Chemistry Practical I	C	1	
CHM 108	General Chemistry Practical II	C		1
MTH 101	Elementary Mathematics I	C	2	
COS 101	Introduction to Computer Science	C	3	
PHY 101	General Physics I	C	2	
PHY 102	General Physics II	C		2
PHY 107	General Physics Practical I	C	1	
PHY 108	General Physics Practical II	C		1
Total		**37**	**19**	**18**

C = Compulsory; LH = Lecture Hours; PH = Practical Hours

200 level B.Sc Public Health

			Semester	
Course Code	**Course Title**	**Unit(s)**	**1st**	**2nd**
BU-GST 021	Citizenship Orientation		0	
BU-GST 022	Citizenship Orientation			0
BU-GST 200	Communication in English	C		1
BU- GST 215	Adventist Heritage	C	3	
BU- GST 221	Introduction to Agriculture	C	1	
BU- GST 220	Origins and Science			1
BU- GST 290	Introduction to Data Analytics	C	1	
BU-PHS 208	Psychological Foundation of Health Behavioural and Change Process	C		2
BU-PHS 210	Introduction to Community Field Practicum	C		2
BU-PHS 214	Sexuality and Substance Abuse in Adolescents	C		2
BU-PHS 216	Introduction to Health Informatics	C		2
BU-PHS 220	Health Communication and Instructional Design	C		2
ENT 211	Entrepreneurship and Innovation	C	2	
GST 212	Philosophy, Logic and Human Existence	C		2
MCB 201	General Microbiology	C	2	
ANA 205	Anatomy of Upper and Lower Limbs for Allied Health	C	2	
BCH 201	General Biochemistry	C	2	
PIO 201	Introductory Physiology and Blood	C	2	
PHS 201	Introduction to Public Health	C	2	
PHS 202	Biostatistics	C		2
PHS 203	Principles of Epidemiology (infectious Disease Epidemiology and Immunisation Techniques)	C	2	
PHS 204	Demography and Social Statistics in Public Health	C		2
	Total	**38**	**19**	**19**

300 level B.Sc Public Health

			Semester	
Course Code	**Course Title**	**Status**	**1st**	**2nd**
BU-GST 031	Citizenship Orientation		0	
BU-GST 032	Citizenship Orientation			0
BU-GST 310	Data Analysis using Advanced Excel/SPSS/ Power BI/Tableau	C		1
GST 312	Peace and Conflict Resolution	C		2
BU- GST 312	Family Life	C		1
BU- GST 317	Fundamentals of Christian Faith	C	3	
ENT 312	Venture Creation	C		2
BU-PHS 311	Principles of Health Promotion and Education	C	2	
BU-PHS 315	Applied Biostatistics	C	2	
BU-PHS 316	Research Methods in Public Health	C		2
BU-PHS 317	Mental Health	C	2	
BU-PHS 318	Ethics in Public Health	C		2
BU-PHS 319	Community Organization and Development	C	2	
BU-PHS 320	Data Visualization in Healthcare	C		2
BU-PHS 331	Comprehensive School Health	C	2	
BU-PHS 341	One Health	C	2	
PHS 301	Public Health Microbiology and Parasitology/Entomology	C	2	
PHS 302	Health Programme Planning and Evaluation	C		2
PHS 304	Occupational Health and Disaster Management	C		2
PHS 303	Environmental Health and Public Health Laws	C	2	
PHS 305	Family and Reproductive Health	C	1	
PHS 306	Community Health Practicum I	C		2
PHS 308	Public Health Nutrition	C		1
	Total	**39**	**20**	**19**

400 Level B.Sc Public Health

Course Code	Course Title	Unit(s)	Status	Semester 1st	Semester 2nd
BU-GST 041	Citizenship Orientation			0	
BU-GST 042	Citizenship Orientation				0
BU-GEDS 440	E- Project Management and Simulation			1	
BU-GEDS 420	Religion and Social Ethics		C	2	
BU-PHS 413	Public Health Training Methods		C	2	
BU-PHS 416	Internship		C		12
PHS 401	Health Policy and Finance		C	2	
PHS 402	Health System Planning, Management and Administration		C		2
PHS 403	Health Sociology		C	2	
PHS 405	Community Health Care Practicum II		C	2	
PHS 407	Epidemiology, Disease Control and Surveillance		C	2	
PHS 409	International and Global Health		C	2	
PHS 411	Principles of Pharmacology, Therapeutics, and Substance Abuse		C	2	
PHS 400	Research Project		C		6
	Total		**37**	**17**	**20**

Course Contents and Learning Outcomes

GST 111: Communication in English (2 Units 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.

BU-GEDS 120 ICT Fundamentals & Office Productivity Management [2 units, C: LH 15, PH 45]

Senate-approved relevance
This course will help to develop knowledge, skills including practical experience in preparing documents, presentation and the art of keeping record. It will avail our graduates the opportunity to become a Microsoft Office Specialist Certified and avail them effective tools for making all kind of documents like letters, updates, reports, research projects, and typesetting books and magazines, and so on. This in line with the vision and mission of Babcock University.

Course Overview
Microsoft Office is one of the most used software worldwide. Microsoft Office has many products mainly Microsoft Word, Microsoft PowerPoint & Microsoft Excel. In this course of MS office, all three products are covered.
This Microsoft office course is all in one complete MS office training from beginner to expert level. Microsoft office is the need of everyone so If you are working in any field like engineering, auditing, data analyzing, data entry, or if you are a student, teacher, or researcher or are working in the field where any of these three products of Microsoft Office are used you can choose this course to gain the skill as per your requirement.

Objectives
The objectives of the course are to:
i. learn Microsoft Word from Beginner to Expert Level
ii. learn to Create a Professional Document Template
iii. learn to do Professional & Advanced Document Formatting & Layout in Microsoft Word
iv. learn Microsoft PowerPoint from Beginner to Expert Level
v. learn to Create an Eye Catchy Presentation
vi. learn to Customize the PowerPoint slides
vii. learn Microsoft Excel from Beginner to Expert Level
viii. learn the
Mathematical Functions
ix. learn the Logical Functions
x. learn the LOOKUP Functions
xi. learn the Excel Sheet Auditing Tools
xii. learn Data Consolidation in Excel
xiii. learn
Printing the Excel File
xiv. learn the
use of Tables, and PivotTables & Charts

xv. learn to Create Dashboards

xvi. learn
About Form Controls
xvii. learn the
VBA & Macros
xviii. learn the
Shortcut Keys for Microsoft Word, PowerPoint & Excel.

Learning Outcome
On completion of the course, students should be able to:
Word:
i. creating text documents
ii. editing and formatting the existing documents
iii. making a text document interactive with different features and tools
iv. graphical documents, comprising images
v. used by Authors and Researchers
vi. detect grammatical errors in a text document.
Excel:
i. perform data entry and storage
ii. collection and Verification of business data
iii. administrative and managerial duties
iv. accounting and budgeting
v. data Analysis
vi. reporting + Visualizations
vii. forecasting.
PowerPoint:
i. create presentations from scratch or a template
ii. add text, images, art, and videos
iii. select a professional design with PowerPoint Designer.

COURSE CONTENT
Word:
Getting started with word. Adding tables. Controlling page appearance. Formatting text and paragraphs. Inserting graphic objects. Managing lists. Preparing to publish. Working more efficiently. Controlling the follow of a document. Customizing formats using styles and themes. Inserting content using quick parts. Organizing content using tables and charts. Simplifying and managing long documents. Using mail merge. Using templates to automate document formatting.
PowerPoint:

Getting started with PowerPoint. Preparing a PowerPoint presentation. Performing advanced text editing operations. Adding graphical elements to your presentation. Modifying objects in your presentation. Adding tables to your presentation. Adding charts to your presentation. Preparing to deliver your presentation. Adding SmartArt math equations to a presentation. Collaborating on a presentation. Customizing a slide show. Customizing design templates. Modifying the PowerPoint environment. Securing and distributing a presentation. Working with media and animations.
Excel:
Getting started with excel. Formatting a worksheet. Managing workbooks. Modifying a worksheet. Performing calculations. Printing workbooks.

Lab Work: Students will undertake the following tasks in the practical classes; Learn how to use Microsoft Word to create resumes, reports, and write letters & as a simple text editor.
Learn how to use MS Excel in business analysis, managing lists of people, operations management, and performance reporting & for office administration, project management, and managing programs, contracts and accounts.
Learn how to use PowerPoint to create a slideshow of valuable information through charts, and images for a presentation.
Minimum Academic Standard: Computer studio and simulation Laboratory with a NUC-MAS requirement facilities.

BU-GEDS 126 Life and Teachings of Christ (3 Units; C; LH 45)

Senate-Approved Relevance

Among many religionists, the historicity, life, teachings, precarious death and resurrection of Jesus Christ remains debatable. Even among Christians, there are still areas of disagreement. However, the Bible and secular history provide veritable insights that affirm not just the historicity of Jesus Christ, but also his exemplary lifestyle and mission. As a faith-based institution of higher learning, Babcock University Senate approved studies on the life and teachings of Jesus Christ to provide understanding of the Gospel accounts and extant documents from the Jewish and Greco-Roman era, on the historicity, life, ministry and teachings of Jesus Christ. Knowledge of the person of Christ, life, teachings, as well as the transforming power of his death and resurrection aligns with Babcock University's commitment to whole-person education which develops not only their spiritual potentials but also impart their character for better service to God and humanity and in preparation for the hereafter.

Overview

An understanding of the trajectories that underlay the Jewish and Greco-Roman era prior to the time of Christ, expose the religio-political and socio-cultural life of the Jews. One the one hand, the Jews lived in anticipation of the Messiah, who, for them, must be a political leader to deliver them from their Roman oppressors, restore the city of David and establish their independence. On the other hand, several religio-political and socio-economic activities and events under the Roman empire hastened preparation for the Messiah, indicating that the incarnation of Jesus Christ came at the fullness of time (Galatians 4:4).

As opposed to the Jewish expectations on the nature, status, and mission of the expected Messiah, the manner of Jesus' incarnation, His life and teachings constituted a source of conflict with the Jews. Whereas the Jews anticipated an earthly, physical, political, and national Kingdom, achievable through military might, Jesus taught of a spiritual Kingdom, which is universal, and established through the Divine order of God. Through the Sermon on the Mount among others, He taught that qualification into this Kingdom was by accepting Christ as the Messiah, expressing faith in His redeeming love, and living in obedience to kingdom principles. An understanding of

the unique mission and ministry of Jesus Christ and the theological, the spiritual meaning of His death and resurrection in the light of the Gospel narratives will enable students to acknowledge Him in their personal lives and equip them for a life of excellence, integrity, and selfless service to God and humanity and prepare them for eternal life.

Objectives

The objectives of the course are to:

Establish the historicity of Jesus Christ;

Explore the religio-political and socio-economic nature of Palestine during the times of Christ;

Describe evidences that Jesus Christ came at the fullness of time;

Analyze the theological implications of the Incarnation and view Christ's teachings;

Assess the Jewish views of the Kingdom;

Explain the teachings and practices of Jesus Christ;

Describe the events leading to Jesus' arrest and crucifixion;

Analyze the theological implications of Jesus' death and resurrection;

Learning outcomes

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

Assess the historicity of Jesus Christ, using at least five (5) biblical and extant literature;

Explore five (5) religio-political and socio-economic events in Palestine during Jesus' time.

Enumerate five (5) evidences that Jesus Christ came at the fullness of time;

Identify at least three (3) theological implications of the Incarnation;

Contrast between Jewish and Jesus' views of the Kingdom;

Enumerate any seven (7) teachings of Jesus Christ;

Describe any five (5) events leading to Jesus' arrest and crucifixion;

Enumerate any five (5) theological implications of Jesus' death and resurrection;

Course Contents

The world which Jesus met and worked in. God with Us. Historicity of Jesus Christ. The fullness of Time. Childhood and Youth of Jesus. The Baptism of Jesus. The temptation of Jesus. The Gospel of the kingdom. The Ministry Jesus Christ. The Mission of Jesus Christ. Jesus' Teaching

Methods. The Sermon on the Mount. The last days of Christ earthly life. Gethsemane Experience. Jesus' Arrest. Judgement of Jesus. The Crucifixion. Burial and Resurrection. Jesus' Appearances. Theological implications of Jesus Resurrection and teachings.

Minimum Academic Standards

Standard University Library

BU-PHS 108 Introduction to Sociology (2 Units; Core; LH = 30; PH= Nil)

Senate-approved relevance

Public Health is a community/social/people-oriented course of study, therefore training high-quality graduates who are very knowledgeable in Sociology is in agreement with Babcock University's mission and vision to produce Public Health Science graduates who appreciate the meaning of the dignity, integrity, value and self-worth of mankind. It will enable graduates to have fascinating insights into how society works, especially regarding the different kinds and levels of relationship that play out between the people who make up society. This training is designed to examine how culture, social structures (groups, organizations and communities) and social institutions (Family, Education and Religion) affect human attitudes, actions and life-chances, giving the students enough theoretical and practical backgrounds that will enable them incorporate a strong focus on wholesome Public/Community based health actions in functioning effectively both in the industry and in academia as experts in the Public Health Promotion and Education field.

Overview

Public Health is a course that promotes the welfare of the community/society, ensuring security and protection from the spread of infectious diseases and environmental hazards in order to ensure access to safe and quality care. It is therefore imperative that our students are introduced to Sociology and Anthropology where they will learn mechanisms and dynamics of human/social interactions and interrelationships. It explains the important roles of sociology and anthropology. Areas of emphasis include social organization, population, societal as well as collective behaviour, social movement and ideology. The uses of sociology are explained.

This course helps students develop requisite skill set to examine, describe and analyse the social structure and dynamics of whichever human society they find themselves in so that they can plan and successfully implement effective public/community-based health interventions geared towards disease prevention and/or eradication.

Objectives

The objectives of the course are:

1. Explain the concepts, theories, and methods of the behavioural and social services.

2. Enumerate the basic social processes of society, social institutions and patterns of social behaviour.
3. Discuss the processes involved in social development
4. Explain how health and illness are structured by the society in which we live
5. Describe social factors as it relates to health inequalities
6. Discuss socio-cultural and interpersonal processes of a constantly changing complex society.
7. Explain the competence in Social Organization and Group Formation and Management

Learning Outcomes

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

1. Define the concepts of sociology
2. Describe five (5) ways by which culture and social structures governing the society shape peoples own beliefs and behaviours.
3. Outline three (3) processes involved in social development
4. State two (2) ways health and illness are structured by the society
5. Discuss social factors in relations to health inequalities
6. Enumerate socio-cultural and interpersonal processes in changing complex society
7. Outline five (5) competence in Social Organization and Group Formation and Management

Course Contents

Definition of Sociology. Significance of Sociology. Culture and Health. Society and social interaction. Meaning of health and illness. Social determinants of health and illness. Human behavior and social issues. Sociology and health behavior. Sociology of medicine. Medical sociology. Concept of socialization. Modes of socialization. Modes of social learning. Components of socialization. Social organization and Social interaction. Social processes and Society. Social stratification. Social media and technology.

Minimum Academic Standard

BU-PHS 116 Health Anthropology (2 Units; Core; LH=30; PH= Nil)

Senate-approved relevance

A combination of health practices has continued to threaten sound health principles and belief in intervention that promote optimum health. This is with the view to provide graduates with understanding on the complexities of health. More so, the intersection between culture (material

and non-material) and its influence on health needs to be well understood as it promotes cultural diversity. This is in line with Babcock University's vision to produce graduates that are equipped with sound knowledge on the value of health and society well-being. A public health graduate must be able to function adequately with other members of the team at local, state, national and international settings to increase the knowledge, skills and motivation necessary for individuals to assume greater responsibility for their health status; perform full community diagnosis using indicators of health and participate in community mobilization to promote health. This is in support of our core value of team spirit and servant leadership for excellence.

Overview

The cultural, historical and political forces shape how health, illness and wellbeing are perceived, experienced, and understood among group of individuals, since culture is not static but dynamic and ever changing as society continues to develop. This will provide a good knowledge and understanding of the interplay between health and well-being.

The course examines the relationships between ill health states and culture. The course also examines customs, and beliefs in relationship to life styles, social interactions and developmental processes within groups, sub-groups and lineages. The course further provides the student with a better understanding of the dynamics of ill-health states from the cultural perspectives. Lastly the course reviews and explains relevant and appropriate behavioral models to clarify public health anthropological issues and situations.

Objectives

The objectives of the course are:

1. Discuss culture, health and disease
2. Explain the link between culture, illness definition and health practices.
3. Describe the various Nigerian socio- cultural groups and their unique beliefs.
4. Discuss the relationship between customs, beliefs and lifestyles
5. Explain relevant and appropriate behavioural models to clarify anthropological issues and situations.
6. Discuss the dynamics of illness from cultural perspective
7. Describe globalization and health anthropology

Learning Outcomes

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

1. Enumerate four (4) components of culture that influence how people conceive concepts and social interaction.
2. Discuss the link between culture, illness definition and health practices
3. Outline at least three (3) socio-cultural groups and their unique health beliefs
4. Explain five (5) ways in which illness are expressed in three cultural groups
5. Outline five (5) relevant and appropriate behavioural models to clarify anthropological issues
6. Describe two (2) dynamics of illness from cultural perspective
7. Explain four (4) global trends in contemporary health debates

Course Contents

Introduction to Anthropology. Branches of Anthropology. Cultural contextualization in social institution. Cultures and ethnicity. Social institutions in community. Characteristics of the community. Culture and healthcare. Epidemics and culture. Theories of culture. Theories and Models on diseases. Theories of disease causation. Cultural interpretation of health. Anthropology in Public Health. Socio-cultural determinants of health. Globalization and health Anthropology. Medical Anthropology. Globalization and disease processes. Culture and global health debates. Pathways to Healthcare Culture and Health Behavior. Culture and health services utilization. Culture and burden of diseases.

Minimum Academic Standard

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 cells 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 Lamarckism, Mendelian laws, explanation of key genetic terms). Elements of ecology and types of habitat.

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 kingdoms;
4. explain nutrition, respiration, excretion and reproduction in plants and animals; and
5. 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.

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

Learning Outcomes
At the end of this course, 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. justify 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. illustrate 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 LeChatelier'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 and chemical reaction. Chemical equation and stoichiometry. Atomic structure and periodicity. Modern electronic theory of atoms. Radioactivity. Chemical bonding. Properties of gases. Equilibria and Thermodynamics. Chemical Kinetic. Electrochemistry.

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

Learning Outcomes
At the end of this course, 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. describe 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.

CHM107: Practical Chemistry I (1 Unit C: PH 45)

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

1. describe 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 (Algebra and Trigonometry) (2 Units C: LH 30)

Learning Outcomes

At the end of the 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; subset, union, intersection, complements, venn diagrams. Real numbers; Integers, Rational and Irrational numbers, mathematical, induction, 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.

COS 101: Introduction to Computing Sciences (3 Units C: LH 30; PH 45)

Learning Outcomes

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

1. explain basic components of computers and other computing devices;
2. describe the various applications of computers;
3. explain information processing and its roles in the society;
4. describe the Internet, its various applications and its impact;
5. explain the different areas of the computing discipline and its specialisations; and
6. demonstrate practical skills on using computers and the internet.

Course Contents

Brief history of computing. Description of the basic components of a computer/computing device. Input/Output devices and peripherals. Hardware, software and human ware. Diverse and growing computer/digital applications. Information processing and its roles in society. The Internet, its applications and its impact on the world today. The different areas/programs of the computing discipline. The job specialisations for computing professionals. The future of computing.

Lab Work: Practical demonstration of the basic parts of a computer. Illustration of different operating systems of different computing devices including desktops, laptops, tablets, smart boards and smart phones. Demonstration of commonly used applications such as word processors, spreadsheets, presentation software and graphics. Illustration of input and output devices including printers, scanners, projectors and smartboards. Practical demonstration of the Internet and its various applications. Illustration of browsers and search engines. How to access online resources.

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

Learning Outcomes

At the end of the course, the student 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 student 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
5. Ampere's law;
6. describe electromagnetic induction and related concepts, and make calculations using
7. Faraday and Lenz's laws;
8. explain the basic physical of Maxwell's equations in integral form;
9. evaluate DC circuits to determine the electrical parameters; and

10. 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 Experimental Physics I (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; and
5. draw conclusions from numerical and graphical analysis of data.

Course Contents
This introductory course emphasises 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 etc., 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.

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. identify the basic features of philosophy as an academic discipline;
2. identify the main branches of philosophy & the centrality of logic in philosophical discourse;
3. describe 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: explain the concepts and theories of entrepreneurship, intrapreneurship, opportunity seeking, new value creation, and risk taking; State

the characteristics of an entrepreneur; engage in entrepreneurial thinking: identify key elements in innovation describe stages in enterprise formation, partnership and networking including business planning. Describe contemporary entrepreneurial issues in Nigeria, Africa and the rest of the world; and state the basic principles of e-commerce

Course 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.

BU-GEDS 215 Adventist Heritage, (2 Units; C; LH 45)

Senate-Approved Relevance

Adventist Heritage, one of Babcock University's eight core values, encompasses not only the history and prophetic roots of the Seventh-day Adventist Church, but also her distinctive mission and emphasis on health, family, lifestyle, publishing, stewardship, whole-person education, and preparation for eternity, among others. As a faith-based institution of higher education with a distinctive origin, identity, and mission mandate, the Senate approved the course Adventist Heritage to provide students with first-hand knowledge of the trajectories that underlie the foundations, identity, developmental stages, mission, and impact of the Seventh-day Adventist Church on a global scale. Exposure to the rationale and dynamics of preaching, teaching, healing, and publishing, which constitute key arms of Adventist mission, is consistent with Babcock University's educational philosophy, which is founded on the harmonious development of our students' intellectual, physical, social, and spiritual potentials for effective leadership and service in the present world, and the joy of service in God's kingdom.

Overview

The Seventh-day Adventist Church traces its root to the Millerite Movement of the 1830s to 1840s. Having studied the book of Daniel with particular attention to the time for the cleansing of the sanctuary (Daniel 8:14), William Miller concluded that the historical fulfillment of this prophetic message will culminate in the Second Coming of Christ in 1844. Whereas, Christ did not return to earth in 1844, the events that followed birthed a prophetic movement comprising of Advent

Millerites who committed themselves to study and understand the prophetic books and to proclaim God's endtime message to the world.

From this humble beginning in North America, and in keeping with their conviction that Jesus Christ entered the final phase of His Ministry in the heavenly sanctuary in 1844, the group engaged in health reforms, printing and distribution of tracts and literature, establishment of holistic educational systems, overseas missionary endeavors, among others. The Seventh-day Adventist Church was organized into a world Church in 1863. However, its presence was felt in West African in the 1850s and Nigeria in 1914 through David C. Babcock. Using her tripartite approach (preaching, teaching, and healing), the church has established her work in 212 out of the 235 countries recognized by the United Nations. As at December, 2021, the church membership stood at 21, 912, 161; Adventist publications and oral works are proclaimed through 535 languages, with a total of 9,419 schools out of which 118 are tertiary institutions, 1, 976 hospitals, clinics, and other health facilities, 18 Media Centers, and 57 Publishing houses. Adventist Development and Relief Agency (ADRA) has its presence in over 130 countries and areas of the world and have funded over 1, 506 projects with about 21 million beneficiaries.

Since 1914, the Seventh-day Adventist Church has remained stakeholders and major contributors to national development and growth. The course is designed to teach students the trajectory of the origin, mission, exploits and challenges of Seventh-day Adventism worldwide, with particular reference to Africa, bringing to fore God's leadership, her rich heritage and potentialities.

Objectives

The objectives of the course are to:

1. Describe the historical and prophetic origin of the Seventh-day Adventist Church.
2. Illustrate the step-by-step development of the Seventh-day Adventist Church.
3. Explain the contributions of the pioneers and founders of the Seventh-day Adventist Church.
4. Identify the pillar doctrines of the Seventh-day Adventist Church.
5. Describe the principles and the process involved in the development of the pillar doctrines of the Seventh-day Adventist Church.
6. Evaluate Seventh-day Adventists' concepts of holistic education, healthcare and reforms, and publishing ministries.

7. Explain the revival of the prophetic gift in the Seventh-day Adventist Church and its significance to the Adventist Mission.
8. Analyze what Adventism stand for, it's concept of mission and destination.
9. Explain the trajectory of the origin, exploits and challenges of Seventh-day Adventism in Africa.
10. Assess the major contributions of the Seventh-day Adventism in Africa, with specific focus on national growth and development.

Learning Outcomes

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

1. Explain the history of the Seventh-day Adventist Church.
2. Illustrate the systematic development of the Seventh-day Adventist Church.
3. State the contributions of at least five (5) pioneers of the Seventh-day Adventist Church.
4. Explain the seven (7) pillars of the Seventh-day Adventist church doctrine.
5. Describe the Seventh-day Adventists' concepts of holistic education, health reforms, and publishing ministries.
6. Identify at least eight (8) major contributions of Adventist education, health reforms, and publishing ministries.
7. Enumerate at least (7) areas in which the prophetic gift has shaped the mission of the Seventh-day Adventist Church.
8. Explain the meaning of Adventism and the aim of Adventist mission.
9. Describe the dynamics involved in the origin and growth of Seventh-day Adventism in Africa.
10. List at least eight (8) major contributions of the Seventh-day Adventism in Africa, with specific focus on national growth and development.

Course Contents

The historical and prophetic origin of the Seventh-day Adventist Church. Millerite roots, before 1844. The 1844 experiences. The development and organization of the Seventh-day Adventist Church. The era of doctrinal and organizational development (**1844 – 1863).** The era of institutional and lifestyle development (1863ff). The era of revival, reform, and expansion (**1888 – 1900**). The era of reorganization and Crisis (**1901 - 1910**). The era of worldwide growth (**1910 – 1955**). The challenges and possibilities of maturity (**1955).** The contributions of the pioneers and founders of the Seventh-day Adventist Church. The Pillars of Adventism. Adventists' concepts of holistic education. Healthcare and reforms. Publishing ministries. The prophetic gift in the Seventh-day Adventist Church. Significance of prophetic gift to the Adventist Mission. The purpose of Adventism. Adventist concept of mission. The origin, exploits and challenges of Seventh-day Adventism in Africa. Contributions of the Seventh-day Adventism in Africa.

Minimum Academic Standards

The presence of Ellen G. White Research Center, which contains ancient manuscripts.

BU-GEDS 221 Introduction to Agriculture (1 Unit; Core; LH = 15; PH = 45)

Senate-approved relevance

This Senate-approved course has been designed to expose students across all disciplines in the university, to the basics of modern agriculture. This aligns with the mission and vision statements of Babcock University to train competent students with skills and knowledge that will be of benefit to society. The Lord has promised to provide us with rain to water the seeds that we sow, crops that yield abundantly, healthy and productive livestock, and farms that are free of plagues (Isiah 30: 23-24).

Overview

This is a 1-credit practical-oriented course that focuses on introducing students to: the origin and development of agriculture; types of cropping systems and their importance; agricultural policies; soil science including types of soil, soil conservation and losses; crop production to include an example of cereals, tuber, vegetables and tree or fruit crops; actual cultivation of one of the crops; crop pests and diseases; classes of livestock, with an example of monogastric, ruminants and non-conventional livestock; health, reproduction, management and nutrition of livestock; and the importance and problems of agriculture in Nigeria.

Objectives
The objectives of the course are to:
1. Define agriculture, its origin, branches and importance.
2. Review of some Agricultural policies in Nigeria.
3. State the aims and objectives of soil science.
4. Mention and describe the soil physical properties.
5. List and describe the attributes of different types of soil

6. Highlight and explain the causes of soil losses in agriculture.
7. Mention and explain the agricultural systems & practices.
8. List the types/classes of crops
9. Highlight the problems of the livestock industry in Nigeria.
10. Discuss the management practices of some selected poultry/livestock production.

Learning Outcomes
On completion of the course, students should be able to:
1. Recall the definition and discuss at least three (3) of the branches of agriculture.
2. Critique five important agricultural policies in Nigeria.
3. Discuss the objectives of Soil Science.
4. Discuss 5 physical properties of soil.
5. Discuss the characteristics of different soil types.
6. Discuss the reasons for losses of agricultural soil
7. Discuss different types of agricultural systems and practices with relevant examples in Nigeria
8. Describe the different types of crops with examples from across Nigeria
9. Discuss the problems facing livestock producers across Nigeria
10. Describe 3 common management practices in poultry/livestock production.

Course Contents
Introduction to Agriculture, its origin, branches and importance; Definition, scope and objectives & review of Agricultural policies; Introduction to soil science, its aims and objectives; Soil formation and soil physical properties; Erosion; Introduction to Crop Science (Agricultural systems/practices); Livestock production (importance & problems of livestock industry); Production practices of some selected ruminants, monogastric & non-ruminant herbivores; Non-conventional livestock production practices

Minimum Academic Standards
Field experimental plots

GEDS 220/250/290: Origins and Science [1 units. C: LH 15. PH 45]

Course contents:
Religion and Science. Origin, Creation and the Flood. Scientific theories about Origin. Darwinism and theory of Evolution. Micro- and Macro-evolution. Geologic column, Fossil record and Scientific dating. Drawbacks to the theory of evolution and Darwinism. Cambrian explosion. Incompleteness of the Fossil record. Molecular machines and Irreducible complexity. Specificity and regulation of the DNA. Limitations of science. Alternatives to the theory of evolution. Intelligent Design (ID). The Flood. Aspects of Human origin. Cosmic origin and the

Total environment. The uniqueness of the Planet Earth and Life. Science, Reasoning and Faith.

BU-GEDS 290 Introduction to Data Analytics [2 units. C: LH 15. PH 45]

Senate – approved relevance

Introduction to Data Analytics course includes topics and practical exercises that can teach students how to extract, analyze, and manipulate data to draw conclusions or insights. It also teaches about various Data Analytics tools and software that help in the analysis of data. Hence, the essential Data Analytics subjects include Probability and Statistics, Data Structures and Algorithms, Data Simulation, Data Collection, and similar.
This course delivers the basic requirement for any aspiring data scientist and big data analysts to make business impact. The course covers the core concepts of analytics and reporting with introduction to the use of a visualization tools to entrench the necessary background knowledge. This is necessary to produce self – reliant and excellent data analysts with adequate technical skills. Fundamental concepts relevant to latest development, entrepreneurial competences, and tech-know-how in data analysis that plays a vital role in equipping the students with critical thinking and analytical abilities for such immediate and future tasks.

Course Overview
In this complex, digital world, clients want help to understand their data to drive greater insight, improved performance and competitiveness. The course will introduce students to the important techniques and methods to become more efficient in delivering their daily objectives and also improve their work ethics.
This course presents you with a gentle introduction to Data Analysis, the role of a Data Analyst, and the tools used in this job. Students will learn about the skills and responsibilities of a data analyst and explore from several datasets & advice to start a career. This course will help students to differentiate between the roles of Data Analysts, Data Scientists, and Data Engineers.

Objectives
The objectives of the course are to:

i. explain what Data Analytics is and the key steps in the Data Analytics process
ii. differentiate between different data roles such as Data Engineer, Data Analyst, Data Scientist, Business Analyst, and Business Intelligence Analyst
iii. describe the data analysis process involving collecting,
iv. describe data analysis process involving wrangling
v. describe data analysis process involving mining
vi. describe data analysis process involving visualizing data
vii. describe the different types of data structures, file formats, and sources of data
viii. apply quantitative modeling and data analysis techniques to the solution of real world business problems
ix. communicate findings
x. effectively present results using data visualization techniques.

Learning Outcome
On completion of the course, students should be able to do:
i. uncertainty analysis

ii. data fitting
iii. feed-forward neural networks
iv. probability density functions
v. correlation functions
vi. fourier analysis and FFT procedures
vii. spectral analysis
viii. digital
filtering
ix. hilbert transforms.

COURSE CONTENT
Connecting to data. Simplifying and sorting data. Organizing data. Posing a question. Wrangling data into a format. fixing data problems. exploring the data. finding patterns. building intuition. comparing measures. Statistics and forecasting. Dashboards and stories.
Lab Work: Students will undertake the following tasks in the practical classes; learn how to analyze data to understand data through natural language queries that allows to ask questions about data without having to write complicated formulas. In addition, students will learn how to analyze data to provide high-level visual summaries, trends, and patterns.
Minimum Academic Standard: Computer studio and simulation Laboratory with a NUC-MAS requirement.

BU-PHS 208 **Psychological Foundation of Health Behavior and Change Process** (2 Units; Core; LH=30; PH=Nil)

Senate-approved relevance

Training of high-quality graduates who are highly skilled and have an understanding of theories necessary for health promotion and education approach to behavior change which is in agreement with BU's mission to produce public health graduates who will transform and impact the society for positive change. The training is relevant and geared towards giving the students enough understanding of models that explain the dynamics of human behavior becomes important tools in behavior change communication found to be effective in design and implementation of prevention programs. Public health professionals without the skill to understand the dynamics of human behaviors would have serious challenge in designing and implementing health promotion program. Therefore, the BU is committed to the inclusion of this course as a foundation to the health promotion, and the public health degree program as it will equip the students to apply the necessary behavioral principles in health behavior diagnosis prior to implementation of and behavior change communication program.

Overview

The course provides opportunity for students to examine the role of human behavior at individual, group and community levels, and acquaints them with the types of changes occurring over-time. It focuses also on the theories of individual behavior and highlights the relationships between the various psychological variables, which form the basis of personality on which lifestyles and health practices are hinged.

A brief study of physiological basis of behavior would feature to show the relationship between issues such as neuro-physiology and learning process in the dynamics of behavior. Specific health behavior models are presented to illustrate issues and situations to clarify specific psychological/behavioral actions. Specific examples are cited to illustrate the dynamics of change processes and psychological behavior. Behavioral models-based intervention strategies are used during laboratory sessions to highlight concepts relevant to different groups.

Objective

The objectives of the course are to**:**

1. Define health, images of health, behavior and health Education
2. Explain behavior as the link between health and disease
3. Discuss the psychological basis of behavior
4. Describe specific theories of individual behaviors related to health and disease,
5. Define planned and unplanned change
6. Explain the process of behavior change in health education process
7. Discuss how theory-based approach to health education can be used as tools in bringing about change in health behavior appropriate to supportive lifestyle

Learning Outcomes

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

1. List at least five (5) images of health.
2. Discuss two (2) ways behavior is linked with health and disease
3. Explain three (3) psychological basis of behavior
4. Enumerate five (5) applications of behavioral theories and models.
5. Describe three (3) planned and unplanned change
6. Explain two (2) process of behavior change

7. State the five (5) steps in designing a behavioral modification change program.

Course Contents

Meaning and scope of health and behavior. Psychological Basis of Behavior. Biology of behavior. Sensory processes of perception and cognition**.** Emotions and Attitudes. Health behavior. Ecology of human health and disease. Disease process and its impact on quality of life. The role of human behavior in the ecology of health and disease. Health in transition and transition in health care. Psychology of abnormal behaviour. Theories of Disease Causation. Models and theories for understanding health behavior change**.** Learning process and behavior modification. Approaches of health behavior change**.** Levels of prevention and modes of intervention for individual change. Theory based strategies for understanding change process. Practical application in health promotion high-risk behaviors.

Minimum Academic Standard

BU-PHS 213 Sexuality and Substance Abuse in Adolescents (2 Units; Core; LH=30;

PH=Nil)

Senate-approved relevance

The university environment is mainly occupied by adolescents, who are a vulnerable group with specific developmental needs and challenges. In line with the philosophy of the University of providing whole person education, this course explores the harmonious development of the human mind with a focus on the physical, social and mental domains. The University is committed to building socially responsible characters who can make autonomous and health-conscious decisions in the aspect of sexuality and substance abuse. This course will equip adolescents with the skills needed to identify and make informed decisions on the psychological, social and biological predictors of sexuality and substance use behaviors.

Overview

Adolescent health and wellbeing are core aspects of the health of a population as it focuses on the development of the wellbeing of the future generation. More than a quarter of the world's population are adolescents, therefore, investments in adolescent health provide huge benefits for the society at large. Due to the current trends in health outcomes among this population, it is

considered that adolescents require adequate skills to build healthy relationships and sexuality with clear, protective signals regarding sexual decision-making.

This course is designed to explore the scientific evidences on factors which influence adolescent health with special emphasis on sexuality issues and substance use behaviours. The significant themes in adolescent sexual and reproductive health (ASRH) as well as the psychological, social and physical factors associated with psychoactive substance use. The course contents will include policy and ethical concerns affecting adolescent sexual health outcomes and the effect of teenage physical, sexual, and social development on sexual risk-taking behavior. The concepts of faith will be integrated into the course to enable learners adopt wholistic measures for prevention and management of adolescent issues. Thus, this course has been designed to explore sexuality and substance abuse as correlates of adolescent health as well as designing effective evidence-based public health interventions to prevent and reduce the negative outcomes of unsafe behaviors.

Objective

The objectives of the course are to:

1. Define adolescents and adolescence from various perspectives.
2. Explain the factors contributing to risky sexual behavioral practices among adolescents
3. Discuss the developmental challenges of adolescence
4. Describe the social and psychological perspectives to adolescent sexual behaviors
5. Categorize the predisposing factors to adolescent substance use and abuse
6. Discuss the patterns of substance use and abuse among adolescents
7. Explain the effects of psychoactive and non-psychoactive drugs commonly used
8. Describe evidence-based approaches to manage adolescent sexuality and substance use issues

Learning Outcomes

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

1. Define adolescent and adolescence through two (2) global perspectives
2. Describe three (3) factors contributing to risky sexual behavioral
3. Enumerate four(4) developmental challenges of adolescence
4. Discuss three (3) social and psychological perspectives to adolescent sexual behavior

5. Outline at least six (6) substance abused
6. Discuss three (3) patterns of substance use and abuse among adolescents
7. Outline five (5) effects psychoactive and non-psychoactive drugs commonly used.
8. Explain four (4) evidence-based approaches to manage adolescent sexuality and substance use issues

Course Contents

Adolescence and stages of development. Developmental theories influencing human behaviors. Social and physical perspectives to adolescent development. Mental and cognitive perspectives to adolescent development. Current trends in adolescent sexuality and reproductive health. Epidemiology of sexual health issues. Best practices in designing interventions for adolescent sexuality issues. Substance use and abuse in adolescence. Common substances abused among adolescents. Effect of substance use on adolescent development. Impact of substance use on sexual behaviors of adolescents. Strategies for promoting drug-free environments. Substance use and addiction behaviors. Adolescent friendly health services. Impact of adolescent substance use on social engagement. Treatment options for adolescent substance use. Design and implementation of programs to prevent and control substance use in schools.

Minimum Academic Standard

BU-PHS 215 Introduction to Health Informatics (2 Units; Core; LH=15; PH=45)
Senate-approved relevance

There is a high demand fueled by the health care industry to focus on evidence-based medicine and public health, ethics in public health, quality improvement, telemedicine, data privacy and security and accessibility for patients in the 21st century. More so, the continued growth of Artificial Intelligence and Machine Learning and its relevance in global health care delivery is important. Training graduates and developing their capacity with the global trends in health care is part of Babcock University's vision to produce world class graduates that are knowledgeable on the value of technology to health care delivery. Babcock University is committed to achieving this resolution by training and producing data analysts instilled with Christ-like character and Christian education through a course that is designed understand and apply the techniques of data informatics, data processing and data security standards through the use of technology and standard improvements and the embracing of patient information rights.

Overview

One of the World Health Organization's six building blocks of effective health strengthening is the health information system. Data availability, quality and use are still areas of concern in Nigeria due to incomplete data, inconsistencies in data reporting, poor knowledge of computers and information technology for recording, inconsistent power supply and communication network. Hence, the understanding and implementation of data analytics and a functional health information system is crucial for improving patient safety, improving health outcomes and increasing efficiency through the use of modern technology.

This course offers an overview of the field of health informatics by providing students with the fundamental knowledge of the concepts of health informatics and how technology can be used in the delivery of health care. The course is also devoted to exposing students to the optimal use of data, information, and knowledge to advance individual health, health care, public health, and health-related research. Students will learn the application of informatics skills and knowledge including Biblical principles and foundation of specific health instructions and information to health-related problems. Application activities will include simple data analysis and visualization of clinical data, answering clinical questions using information retrieval methods, and doing simple association analysis of gene variants and disease.

Objective

The objectives of the course are to:

1. Describe the theoretical and practical foundations of health informatics
2. Explain how information and communication technologies are changing healthcare services and provision of health information
3. Discuss the various applications of information and communication technology for healthcare, health promotion and patient self-management
4. Enumerate key issues related to the adoption of health information technology systems (digital divide, health literacy, policy issues, privacy and security)
5. Describe ethical and diversity issues in health informatics
6. Analyze patient data using statistical software such as SPSS, Stata, R.
7. Interpret clinical data visualization to solve health-related problems
8. Explain emerging trends in health informatics

Learning Outcomes

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

1. Discuss two (2) theoretical and practical foundations of health informatics
2. Describe three (3) ways information and communication technologies are changing provision of health information
3. Explain two (2) applications of information and communication technology for healthcare, health promotion and patient self-management
4. List at least four (4) key issues related to the adoption of health information technology systems
5. Outline at least three (3) ethical and diversity issues in health informatics
6. Analyze two (2) patient data using at least one of these statistical software: SPSS, Stata, Epi Info, and R
7. Interpret one (1) clinical data visualization
8. Discuss at least two (2) emerging trends in health informatics

Course Contents

Overview of Health Informatics. Purpose of health informatics. Healthcare data information and knowledge. Foundations of health informatics. Consumer health informatics. Electronic health records. Challenges of implementing electronic health system in Nigeria. Health information exchange. Patient self-management and education systems. Mobile technology and mHealth. Health literacy and digital divide issues. Data privacy and security issues. Policy issues in Health Informatics. Disease Management and Disease registries. Patient safety and health Information Technology. Ethical and diversity issues in health informatics. Telemedicine. Statistical methods in health informatics. Trends in health informatics.

Minimum Academic Standard

Public Health Computer Laboratory

BU-PHS 220 Health Communication and Instructional Design (2 Units; Core; LH=15; PH= 45)

Senate-approved relevance

Training of high-quality graduates who are highly skilled and have an understanding of health promotion and education approach to health communication and development of instructional materials required which is in agreement with BU's mission and vision to produce public health graduates who have stable and noble character for effective leadership and service in the society. Public health professionals without the skill to understand the means of communication in passing health information necessary to human behaviors change would have serious challenge in designing and implementing health promotion program. Babcock University is committed to the inclusion of this course as a foundation to the health promotion, and the public health degree program as it will equip the students to apply the necessary communication principles in passing health information and development of health instructional materials needed for implementation of behavior change communication program.

Overview

This is a study of communication principles, concept, and examines the relevance of these concepts of health education process. The course will review various communication theories, models of mass communication. Theories of adoption of innovation would also be considered. Students critically assess various communication strategies in planning and evaluating communication aspects of public health programs.

The course considers a variety of simple audio-visual methods of communication, discussing their relevance and appropriateness in health information dissemination within the context of culture and technology. Efforts in practical production of medial materials are featured.

Objectives

The objectives of the course are to:

1. Define health communication
2. Discuss the scope and aim of health communication.
3. Describe communication principles and concepts
4. Discuss the essential components of communication process,
5. Enumerate the properties of effective communication

6. Explain communication theories and models of mass communication used in health promotion and education.
7. Describe simple audio-visual methods of communication and their relevance
8. Explain the process of designing a public health instructional materials

Learning Outcomes

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

1. Define Health communication
2. Explain three (3) aim of health communication
3. Discus two (2) communication principles
4. List seven (7) components of communication process
5. Outline five (5) properties of effective communication
6. Discuss three (3) different health communication models or theories to use in achieving behavioral change
7. Explain one (1) audio-visual method relevance to health information within their culture
8. Develop one (1) instructional material

Course Contents

Concepts and determinants of Health. Definition of communication. Health communication. Types of Health communication. Components of communication process. Theory and Models of Communication. Stages of change. Principles of illustration. Development of simple audio-visual methods. Communication for Health Education. Use of PowerPoint and screen printing for health communication. Use of overhead and DVDs for health communication. Use of Computer for health communication. Use of camera of health communication. Review of health education and promotion. Ethics in Health communication. Barriers to health communication.

Minimum Academic Standards

Media Laboratory

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

Course contents

Education or Social Science Faculty:

From NUC & erstwhile GEDS 204: 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.

Science Faculty:

From erstwhile GEDS 222: Philosophy and science. Philosophical doctrines - Skepticism, Rationalism, Idealism, Realism, Pragmatism, Empiricism, Phenomenology. The Scientific process/method, Criteria for science. Validity for Reasoning- Empirical verification. Limitations of science. Integration of Faith and Learning.

PHS 201: Introduction to Public Health (2 Units C: LH 30)

Learning Outcomes

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

1. explain the history and philosophy of public health and its core values;
2. explain the concept of public health and its function in Nigeria and across the globe;
3. demonstrate competence in explaining various concepts of public health;
4. identify different branches of public health and their application in National Health Policy; and
5. explain the various layers of health care and the agencies responsible at each level.

Course Contents

Definition of Health. The WHO definition, its limitation, other definitions of Health. Historical development in Health. Historical Perspective of Health. Definition of Public Health. Its history and development. Branches of Public health. Primary Health care, secondary Health care and Tertiary health care facilities. Role of respective tiers of Government in Health Provision.

PHS 202: Biostatistics (2 Units C: LH 30)

Learning Outcomes

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

1. demonstrate knowledge of interval estimation and hypothesis testing;

2. apply the correct statistical method to analyse one or more variables;
3. interpret statistical results effectively and correctly;
4. appreciate the importance of data and demonstrate reasonable statistical skills; and
5. explain the concept of sampling from a study population in a health study.

Course Contents
The course is planned to equip the undergraduates in all the disciplines of health sciences with the necessary tools and skills for collecting, analysing, interpreting data quantitatively. Topics to be covered include: The central role of statistics in health sciences disciplines, data description, elements of probability. Description of random variables. Applications of the binomial and normal distributions. Estimation and confidence intervals. Contingency tables. Regression and variance analysis. Study design and hypothesis testing for practical purposes. Students are provided with specific data to work on and are also required to develop simple questionnaire protocols for analysis.

PHS 203: Principles of Epidemiology (Infectious Disease Epidemiology and Immunisation Techniques) (2 Units C: LH 30)

Learning Outcomes
At the end of the course, students should be able to:
1. develop knowledge of quantitative and qualitative techniques of epidemiology;
2. plan and conduct valid epidemiological activities;
3. apply field method of primary and secondary data collection;
4. describe routine methods of data analysis;
5. compare the strength and weakness of various experimental designs;
6. implement and interpret result of a study to address health issues;
7. develop critical skills for evaluation of epidemiological findings in reports and studies;
8. define objectives of outbreak investigation in a population;
9. describe the basic principle of screening and outbreak investigation;
10. explain immunisation and its problems;
11. demonstrate knowledge of experimental design, data collection, analysis and interpretation of data of an outbreak; and
12. appreciate and identify risk factors of an outbreak and communicate same to health authorities.

Course Contents
The course gives the students an overview of epidemiology, disease control and surveillance. Specific areas highlighted include the uses of epidemiology; Epidemiology protocols and survey methods. Calculation of basic epidemiological measures. Epidemiology of communicable and non-communicable diseases. Vital statistical and national health information systems. Human ecology and disease processes. Public health laboratory practices methods and Intervention. Strategies in Disease Control and Surveillance. Immunisation for communicable diseases. Immunisation routine and procedures. Ethical issues on collection, use and dissemination of epidemiological data. Students are expected to participate actively in Disease control, surveillance as well as in the monitoring and evaluation processes of selected endemic diseases at the national, state, and local government operational levels. Students are expected to propose an appropriate epidemiological problem. Identify a population. choose a method and design for sampling from the population. Choose and propose records for ascertainment and classification of diseases and

risk factors. Outline a plan of action for data collection and presentation. Students are expected to participate actively in fieldwork assignments and to submit reports. Both communicable and non-communicable morbidity and mortality patterns and trends in Nigeria and elsewhere should be highlighted.

PHS 204: Demography and Social Statistics in Public Health (2 Units C: LH 30)

Learning Outcomes

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

1. demonstrate a clear understanding of basics of demography;
2. discuss the importance of demography in health issues;
3. describe social demographic variables and how they affect population composition and growth;
4. explain knowledge attitudes and practice as demographic tools in public health research;
5. discuss population mobility and its consequences on public health; and
6. identify and interpret population and demographic health data.

Course Contents

Introduction to demographic and the emphasis is on the use of demographic materials and methods for planning, policy analysis, and evaluative research in public health. Emphasis should be placed on the demographic features of the Nigerian population, its size, composition and distribution should be highlighted. Response of demography to mortality, fertility and migration. Health need of each population group and health planning in relation to demography. The course gives an overview of the Nigerian population policies. Trends in general population growth are featured prominently in the course. Topics to cover include: sources and quality of data from census, special surveys, and other vital registration systems. Students are to present the descriptive statistics and graphics with report writing and submit assigned projects.

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 organization of body system. Cutaneous innervation of the 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 the

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 the nerves and blood supply to the lower limb.

PIO 201: Introductory Physiology and Blood (2 Units C: LH 30)

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

1. describe the composition of a cell membrane;

2. explain how a potential difference across a membrane will influence the distribution of a cation and an anion;

3. describe how transport rates of certain molecules and ions are accelerated by specific membrane transport proteins;

4. distinguish between active (primary and secondary) transport, facilitated diffusion, and passive diffusion based on energy source and carrier protein involvement;

5. identify the mechanisms and role of selective transporters for amino acids, neurotransmitters, nutrients, etc.;

6. explain the general concepts of homeostasis and the principles of positive and negative feedback in physiological systems;

7. identify the site of erythropoietin production, the stimulus for its release, and the target tissue for erythropoietin action;

8. discuss the normal balance of red blood cell synthesis and destruction, including how imbalances in each lead to anemia or polycythemia;
9. list and differentiate the various types of leukocytes;
10. describe the role of thrombocytes in haemostasis; and
11. list clotting factors and the discuss the mechanism of anti-coagulants.

Course Contents
Introduction and history of physiology. Structure and functions of cell membranes. Transport process. Special transport mechanism in amphibian bladder, kidney, gall bladder, intestine,

astrocytes and exocrine glands. Biophysical principles. Homeostasis and control systems including temperature regulation. Biological rhythms. Composition and functions of blood. Haemopoiesis. WBC and differential count. Plasma proteins Coagulation, fibrinolysis and platelet functions. Blood groups –ABO system – Rh system. Blood transfusion – indication for collection and storage of blood, hazards of blood transfusions. Reticulo- endothelial system. Imunity and immodeficiency disease and HIV.

BCH 201: General Biochemistry I (2 Units C: LH 30)

Learning outcome:
At the end of the lectures, students should be able to:
1. explain the structure of different macromolecules in biological system;
2. identify types of chemical reactions involving these macromolecules;
3. explain the various methods of isolation of these macromolecules;
4. estimate the effects of acids and alkalis on the macromolecules;

5. describe how to purify the macromolecules; and
6. discuss quantification of the various macromolecules.

Course Contents
Introductory chemistry of amino acids; their properties, reactions, and biological functions. Classification of amino acids: neutral, basic and acidic; polar and non-polar; essential and non-essential amino acids. Peptides. Introductory chemistry and classification of proteins. Biological functions of proteins. Methods of their isolation, purification, and identification. Primary, secondary, tertiary and quaternary structures of proteins. Basic principles of tests for proteins and amino acids. Introductory chemistry of carbohydrates, lipids and nucleic acids. Nomenclature of nucleosides, and nucleotides. Effects of acid and alkali on hydrolysis of nucleic acids.

MCB 201: General Microbiology (2 Units C: LH 15; PH 45)

Learning Outcomes
At the end of the course, students should be able to:
1. discuss basic concepts and scope of microbiology;
2. describe the layout of a microbiology laboratory, equipment and reagents in a microbiology laboratory; and
3. discuss the theory behind basic protocols in a microbiology laboratory.

Course Contents
History of the Science of Microbiology. Classification of organisms into prokaryotes and eukaryotes; Classification of prokaryotes into archaea and eubacteria. Anatomy and cytochemistry of bacteria and fungi. Shapes, groupings and colonial morphology of bacteria and fungi. Structure of viruses. Sterilization and disinfection; Structure, ecology and reproduction of representative microbial genera. Culture of micro-organisms. Isolation of micro-organisms; isolation of bacteria, virus, fungi (yeasts and moulds. Nutrition and biochemical activities of micro-organisms. Antigens and antibodies. Identification and economic importance of selected microbial groups. Microbial variation and heredity. Study of laboratory Equipment. Introduction to microbiology of air, food,

milk, dairy products, water and soil. Staining techniques. Antibiotic sensitivity tests. Serological tests. Antimicrobial agents.

300 Level

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).

BU-GEDS 317 Fundamentals of Christian Faith (3 Units; C; LH 45)

Senate-approved relevance

In a relativized society where questions on *what is* and *how* to determine absolute truth has elicited unending discussions and debates, the quest for the source and nature of truth in relation to faith formation, personal and social ethics, human guidance, and eternal life remains pertinent. For Christianity, especially in the post-modern world characterized by relativism, secularism, and godlessness, the Bible remains the infallible proof of God's expression of love through its Holy Spirit-inspired teachings. Therefore, understanding what constitutes this basic truth upon which the Christian faith is built is essential. As a faith-based institution of higher learning, Babcock University Senate approved studies on the fundamentals of Christian faith to train graduates competent in the knowledge of God and the Bible, and its foundational role in developing a Christian Worldview necessary for faith formation, Christian values, lifestyle, personal salvation, and attitude to God and humanity. Knowledge of specific biblical teachings align with Babcock University's commitment to whole-person education with emphasis on not only the spiritual potentials of graduates but also impact their character for better service to God and humanity, in preparation for the hereafter.

Overview

Questions on the origin, authenticity, and certain claims of the Bible on matters of individual and communal faith and practice have been common parlance among theologians. Amidst various theological divides, the Bible provides accurate information and foundation requisite for personal and corporate faith formation, spirituality, and Christian practices. In the course of the growth of the church from the apostolic age, the Church fathers, and to the middle age cum the Reformation era, the basic teachings of Christian faith have undergone various doctrinal forms and perspectives. The religious, political, social and scientific development of the world has influenced an interpretative conundrum for the understanding of the scriptures. The emergence of postmodernism and an ever-increasing influence of secularization has polluted the understanding and has put to question the God-inspired interpretation of the teachings of the Bible. An understanding of selected biblical teachings which provides a doctrinal framework for the development of the early Christian Church exposes the postmodern readers to the fundamentals of Christian faith.

Objectives

The objectives of the course are to:

1. Assess the origin, authenticity, and reliability of the of the Old and New Testaments;
2. Explain the nature of inspiration, God, and His attributes;
3. Describe the events leading to the Fall of Man and the Plan of Salvation
4. Describe the nature and roles of the Godhead in creation, redemption, and restoration;
5. Contrast the Old Testament and New Testament concepts of Law and grace;
6. Assess themes of eschatology and the Parousia in the Old and New Testaments;
7. Examine selected biblical ordinances and Christian lifestyles
8. Explain prophetic gift for the edification of the church.

Learning outcomes

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

1. Assess the history and development of the Old Testament and the New Testament Scripture;
2. Enumerate at least five (5) attributes of God;
3. Identify any seven (7) characteristic features of the Holy Spirit;
4. Assess any five (5) interconnectedness between the Law and grace;
5. Enumerate at least five (5) evidences of the biblical Sabbath;
6. Identify the symbolism and interpretation of the Daniel 2.
7. Assess at least four (4) signs of Christ's Second Coming;
8. Explain at least three (3) of the biblical ordinances in the scriptures
9. Describe any three (3) of the Christian lifestyles

Course Contents

Nature of Inspiration. God's Word. Authenticity of the Bible. Theology of God: His Names & Attributes. The Holy Spirit. Creation. Origin of Sin. Fall of Man. The Flood. Jesus' Incarnation and Ministry of Intercession. Law and Grace. The Sabbath. The Church and its Mission. Prophecy of Daniel 2. Second Coming. The Signs of the Second Coming. Manner of Jesus' Second Coming. Millennium and the New Earth. Biblical Ordinances. Christian Lifestyles. Prophetic Gift and the Church.

Minimum Academic Standards

Standard Modern library.

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, etc. Entrepreneurial finance: venture capital, equity finance. Micro finance, personal savings, small business investment organizations and business plan competition. Entrepreneurial marketing and e-commerce. Principles of marketing, customer acquisition and retention. B2B, C2C and B2C models of ecommerce. 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. Negotiations and business communication: strategy and tactics of negotiation/bargaining. Traditional and modern business communication methods. Opportunity Discovery Demonstrations: business idea generation and presentations.

Business idea contest, brainstorming sessions, idea pitching, etc. Technological Solutions: the concepts 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, etc. Digital business and e-commerce strategies).

PHS 301: Public Health Microbiology and Parasitology/Entomology LH 30)

(2 Units C:

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

1. differentiate between major groups of micro-organisms;
2. identify and evaluate infections of public health significance caused by bacteria, virus, fungi;
3. identify and evaluate infections of public health significance caused by parasites;
4. describe and explain the pathogenesis of microbial and parasitic infections;
5. be able to explain the process of transmission of microbial and parasitic infections;
6. identify major reservoirs of parasites and microorganism and their roles in transmission;
7. identify the roles of vectors in transmission of microbial and parasitic diseases;
8. describe the life cycle of major insect vectors of parasitic disease and their effective mode of control; and demonstrate knowledge for the control and intervention strategies of microbial and parasitic diseases.

Course Contents
The course covers the study of the characteristics and identification of microorganisms particularly different species of bacteria and parasites. Emphasis is placed on the specific microbial and parasitic agents of communicable and parasitic diseases, most notably Tuberculosis, the Neglected Tropical Diseases (NTDs) such as Malaria, Schistosomiasis, Onchorcerciasis, Dracontiasis and Trypanosomiasis prevalent in the community. Environmental factors favouring their reservoir and intermediate hosts, communicability as well as salient features for their control will be highlighted. Current issues regarding the control intervention, and prevention strategies of these infections and infestations are discussed. Additional emphasis will be placed on the identification of microbial pollutants and contaminants in food and water sources. Laboratory exercises will be used extensively to identify the organisms and visits will be made to water treatment sites, food storage, food handling/preparation points to identify sources of contaminants thereby providing the basis for personal and community health stance. Studies on Insects of medical importance, such as Mosquito, Tsetse fly, Black fly, ticks, and mites their life cycle and control should also be discussed. Vectors, Biological vectors, mechanical vectors, and zoonosis should be discussed.

PHS 302: Health Programme Planning and Evaluation (2 Units C: LH 30)

Learning Outcomes

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

1. conduct community health assessment needs and identify gaps {problems};
2. demonstrate knowledge of identifying and writing of objectives of health program;
3. develop an evaluation strategy/mechanism for health program;
4. develop skills of evaluating health budgets and other financial proposals;
5. identify barriers to successful implementation of health programs;
6. demonstrate adequate skills to develop, implement and evaluate a health program;
7. explain the different types of planning and evaluation; and
8. explain the importance of stakeholders in planning a health program.

Course Contents

The course is intended to prepare public health students of the health sciences to organise health programs that meet specific and identified community needs. The course also highlights the critical issues and logical questions in health planning. The main functions of managements, the implementation function. The supports systems to implement health care programs. The evaluation processes, and the health information format. Skills include setting goals and objectives. Selecting strategies, assessing, and mobilising internal and external recourses linking implementing and evaluating results. Evaluation procedures such as engaging stake holders, assessing resources and developing evaluation question and how to evaluate health budget. Different types of evaluation, formative evaluation, process evaluation and summative evaluation. Different types of planning, Strategic and Operational planning.

PHS 303: Environmental Health and Public Health Laws (2 Units C: LH 30)

Learning Outcomes

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

1. describe the link between environmental factors and health of a community;
2. explain the critical role the environment plays in the health of a population;
3. identify potential health hazards to the community of exposure to biological, chemical and physical pollutants;
4. describe factors that increases the chances of health hazards due to exposure to contaminants;
5. conduct an Environmental Health Impact assessment of a given community to a potential risk factor; explain the scope of public health laws and its focus; and describe the process of environmental health law enforcement.

Course Contents

The course is designed for the undergraduates in public health and others in the health sciences programs. Highlights the three cardinal areas of the environment i.e. the biological, physical/chemical and the socio-cultural environments. Components of the environment. The problems, deteriorating forms/characteristics of the man-made environments with attendant consequences. The important topics in the course include urban and rural environments with particular emphasis on the housing problems. Control of food, water and sanitation. Refuse/solid

wastes disposal and management. Air and water pollution particularly in the riverine areas. Psychological, physiological, and genetic factors that affects health after exposure to environmental hazards. Genetic and physiological factors that predisposes disease as a result of environmental contamination. Visits could be made to specific side to observe conditions existing with regards to air pollution, food sanitation and solid wastes disposal. The various agencies involved in environmental protection in relation to policies, laws, regulation codes and ordinances. Definition and perspective of public health laws. Historical perspective of public health laws. Framework and rationale of public health laws. Major health offences and Procedure of enforcement. Environmental risk assessment. Students chose specific topics of interest for project presentation at class seminars. Environmental Health Laws. Procedures for enforcement of environmental health laws.

PHS 304: Occupational Health and Disaster Management (2 Units C: LH 30)

Learning Outcomes

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

1. describe the basic concept of occupational health;
2. recognise risk factors of injuries in different working environment in the country and other countries;
3. associate different occupations with risk factors for injuries or illness;
4. describe major steps of risk prevention in workplace;
5. apply laws and industrial standard requirements in industries and other workplaces to ensure safety;
6. create job safety analysis using data obtained on injuries and risk factors for every occupation;
7. coordinate the activities of all stake holders during emergency response operation;
8. employ planning to mitigate and recover from a disaster; and
9. participate constructively as a member of disaster management team at sites or location of disaster.

Course Contents

The course is designed for the undergraduates in public health and others in the health Sciences programs. Overview of the history of occupational health in Nigeria and elsewhere. Attention is focused on selected occupational health problems of the various industries and occupations. Various target organs and systems affected by specific hazards are highlighted. Specific areas relating to health hazards from new environmental pollutants and early detection of impairments. Various legislations concerning safety measures for the workers and the work environments are reviewed. Visits to the various industrial setting and other places of interest to identify specific problems. Disaster and disaster Management. Phases of Disaster Management and risk reduction right from Disaster declaration process. How to conduct annual hazard mitigation risk assessment. How preparation is made for Disaster Management, such as preparation for flood, windstorm, land slide and collapsing of buildings and other Disaster issues as well as emergency response procedures and action plans. Procedures at disaster management centres or site of a disaster. Managing humanitarian crises and those of Response and Recovery after a Disaster.

PHS 305: Family and Reproductive Health (MCH) (1 Unit C: LH 15)

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

1. define reproductive health and know its importance in public health;
2. appreciate the magnitude of reproductive health problem;
3. explain the relationship between reproductive health and gender;
4. identify physical and emotional changes associated with puberty; and
5. explain the various contraceptive techniques and the problems associated with each.

Course Contents
Meaning and significance of family health in the context of primary health care. A review of the various social structures of the family provides the student with an understanding of the types of family structures they may likely encounter during practice. Knowledge relating to organisation of family health services. Special areas of emphasis include contemporary issues on gender preference; Genital mutilation. Human sexuality, puberty and the changes associated with it. Contraceptives and family planning. Reproductive health and population dynamics are also featured.

PHS 306: Community Health Practicum I (2 Units C: PH 90)

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

1. demonstrate knowledge on types of questionnaires;
2. explain the different types of questionnaire administration;
3. demonstrate field work leadership ability and teamwork; and
4. analyse and clean data obtained from the field in the questionnaires.

Course Contents
The students at this stage utilise a structured household questionnaire to collect information on health of families in the community. The structured questionnaires are patterned after those of the primary health care system. The information collected by each of the student groups are recorded, analysed and submitted as a report of the fieldwork activities. The practice gives the students an opportunity to translate theoretical concepts and principles in public health into practical experiences needed for program formulation, planning and implementation. At the end of the community practicum, students are expected to present results/findings in the form of a seminar to the department which shall be graded.

PHS 308: Public Health Nutrition (2 Unit C: LH 30)

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

1. explain the different classes of food;
2. demonstrate understanding of role of nutrition in disease prevention in a community;
3. describe the role played by nutrition in diseases such as obesity, diabetes and heart diseases;

4. evaluate nutrition programs of children under five; and

5. explain the national nutritional goals and its associated problems.

Course Contents
The course deals with nutrition issues, which affect the nutritional states of the community. Classification of food. Nutritional value of food and its health effect. Obesity and its health implications. The topics presented are developed within the framework of specific age groups. Areas covered include identification of community nutritional problems, needs, and resources available. Also, emphasis will be directed on planning and administration of programs and services. Evaluation of program effects and developments of skills in the areas of nutrition, education, and communication. Attention will also be focused on national nutrition goals.
Skills will be directed at community nutrition surveys in children 0 – 5 years and school children up to the age of 18 years. National nutrition policy. Government work plans will be reviewed to assess the dietary patterns in the community. Special diets in health and during illness are discussed. Students are expected to participate actively in community and institutional nutritional surveys using the structured questionnaire prepared by staff and students.

BU- PHS 341 Introduction One Health (2 Unit C: LH 30

Senate Approved Relevance
One Health is an integrated unifying approach that aims to sustain balance and optimize the health of people, animals and ecosystem. By connecting humans, animals and the environment, One Health can help to address the full range of disease control from prevention to detection, preparedness, response and management and contribute to global health security. Hence the Babcock University Senate approved studies on the fundamentals of the three "Hs" of Heart, Hands and Head to train graduates competent in the knowledge of God, developing a Christian Worldview necessary for optima leaving, values, lifestyle, personal salvation, and a positive attitude to one's health and society's health. Knowledge of specific tripod stands of Host, Agent and Environment is basic to Babcock University's commitment to whole-person education, with emphasis on not only the spiritual potentials of graduates but also impacting their character for better service to God and humanity, in preparation for a better world of creating low or non-infectious diseases according to WHO projection of low infectious disease and elimination of lifestyle imbued diseases.

Overview

One Health is a holistic, collaborative approach that recognizes the interconnectedness of human, animal, and environmental health. It emphasizes the necessity for interdisciplinary efforts across various fields, including medicine, veterinary science, environmental science, public health, and social sciences, to address complex health challenges. The One Health approach is particularly

relevant in addressing zoonotic diseases (diseases that can be transmitted from animals to humans), antimicrobial resistance, food safety, and ecosystem health.

Interdisciplinary Collaboration by bringing together experts from various fields to work on health issues that affect humans, animals, and the environment. It will explore the preventive Measures focusing on prevention strategies to reduce the risk of disease transmission and environmental degradation. The course will train the students on Surveillance and emergency Response. It will be enhancing surveillance systems for early detection of health threats and improving response mechanisms to health emergencies. The bottom line is the research and education by promoting research to understand the connections between human, animal, and environmental health and educating stakeholders on the importance of a One Health approach.

Finally it will help in developing and advocating for policies that support individual, community local initiatives that will have profound impact at national, and global level to achieve optimal health outcomes for people, animals, and the environment by integrating efforts across all these domains.

Course Objectives:

1. Explain the concept of One Health and its importance in addressing global health challenges.
2. Explore the interconnectedness between human, animal, and environmental health.
3. Identify zoonotic diseases and understand their impact on public health.
4. Analyze case studies to illustrate the One Health approach in action.
5. Develop critical thinking and problem-solving skills to address complex health issues.

Course Content:

This course will introduce students to the principles and concepts of One Health, an interdisciplinary approach to public health that recognizes the interconnection between human health, animal health, and the environment. Through lectures, case studies, and group discussions, students will explore the relationships between human, animal, and environmental health and learn about the importance of collaboration between different sectors to address global health challenges. They will be exposed to the historical perspective and importance of interdisciplinary collaboration. The interconnectedness of human, animal, and environmental health. The definition and examples of zoonotic diseases transmission pathways

Case Studies in One Health -ebola outbreak, Avian influenza and COVID-19 pandemic, the impact of environmental factors on human and animal health, climate change and emerging infectious diseases. The Millenium Development Goals (MDGs) and Sustainable Development Goals (SDGs), on Food Safety and Security**,** Foodborne diseases, Antibiotic resistance and sustainable food production. A quick study of relationship between biodiversity loss and public health and conservation medicine. Role of One Health in preventing and responding to global health threats and international collaboration and coordination. Policy development and implementation and

Advocacy Health approach and contemporary Emerging issues and challenges, Opportunities for further research and action

400 Level

BU-GEDS 440 E-Project Management & Simulation (2 Units C: LH 20 PH 40)

Senate – approved relevance
Through its teaching. e-project Management and simulation. BU graduates will be a role model. self-reliant and excellence in managing any kind of project with international standards and tech-know-how as a certified project manager at the end of the training by one of the most recognised vendors in the field of project management – Project Management Institute (PMI®) with adequate technical skills. fundamental concepts relevant to managing any kind of project. entrepreneurial competences. a sense of public responsibility. communication skills and management skills to handle national and international project.

Overview
The (PMI®) certification training gives beginners an overview of core project manager philosophies and knowledge of the five process groups and 10 knowledge areas prescribed by the project manager Institute (PMI®). The course covers the fundamental concepts of project management and its processes. preparing you for the (PMI®) certification exam.

Objectives
The objectives of the course are to:
i. get all the resources you need to pass the (PMI®) CAPM certification exam.
ii. earn 25 exam contact hours from a PMI Registered Education Provider.
iii. be able to discuss the PMBOK Guide 6th edition with confidence.
iv. explain the project management processes
v. discuss the project management knowledge areas
vi. demonstrate the formulas. charts. and theories of project management
vii. calculate float for complex project network diagrams
viii. memorize the formulas for earned value management
ix. compare and contrast processes. knowledge areas. theories. and project management best practices
x. complete hands-on assignments and exercises.

Learning Outcomes
Upon completion of the course, students should be able to:
i. explain the project management processes
ii. discuss the project management knowledge areas
iii. demonstrate the formulas. charts. and theories of project management
iv. calculate float for complex project network diagrams
v. memorize the formulas for earned value management

vi. compare and contrast processes. knowledge areas. theories. and project management best practices

Course Content

Defining Project Management Fundamentals. Initiating the Project. Planning the Project. Preparing to Develop the Project Schedule. Developing the Project Schedule. Planning Project Costs. Planning Human Resources and Quality Management. Communicating During the Project. Planning for Risk. Planning Project Procurements. Planning for Change and Transitions. Executing the Project. Executing the Procurement Plan. Monitoring and Controlling Project Performance. Monitoring and Controlling Project Constraints. Monitoring and Controlling Project Risks. Monitoring and Controlling Procurements. Closing the Project.

Lab Work: Students will undertake the following tasks in the practical classes; work on stakeholders requirements. Create a risk response team. Create a detailed work plan. Develop communication effective plan. Develop both leadership and technical competencies. Monitor and track progress regularly. Look out for potential risks.

Minimum Academic Standard: Computer studio and simulation Laboratory with a NUC-MAS requirement facilities.

PHS 401: Health Policy and Finance (2 Units C: LH 30)

Learning Outcomes

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

1. demonstrate knowledge of expertise of the health care system of Nigeria;
2. describe how public health and health care are organised and financed in Nigeria;
3. communicate health policies to a community using appropriate media;
4. discuss the concept of demand and supply and its application in health care;
5. identify the roles of various health care agencies and their respective policy documents in Nigeria;
6. discuss public health policy making and health reform;
7. demonstrate knowledge of how politics and socio-economic policies affect health care system in Nigeria;
8. demonstrate skills in health care budgeting and critically evaluate health care financing; and
9. evaluate other Government policies that have bearing to health.

Course Contents

The course is designed to acquaint students in the discipline of health sciences with management information and skills in matters relating to all aspects of the national health care systems and Policies, (the primary health care, the secondary health care and the tertiary health care systems). The course gives an overview of the national health policy and the development of the national health systems. Introduction to Nigeria Health care system. Definition of Health Economics and health care finance. Principles of demand and supply and their application to health care. How societies pay for health care services. Primary role of finance in Health care organisation, the four Cs, cost, cash, capital and control. Health Financing and different methods of Financing Health needs. Principles and practice of Health Insurance Scheme and challenges of the programme. Health Policy Management. National Health Care Agencies in Nigeria. Process of Health Budgeting Law making in State and Federal Government. Social Policies for vulnerable

populations in Nigeria. Evaluation of Health care policies. Elements of financial management, health care settings, Government Hospitals, Private Hospital, Private no Profit Hospitals, other sources of health care like patent medical stores in village communities. Outpatient care, long term care and its cost implication. Regulations and Legal Issues in health care and its financing. Health care budget and financial challenges of the health care system.

PHS 402: Health Systems, Planning, Management and Administration(2 Units C: LH 30)

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

1. demonstrate understanding of the Nigerian Health care system;
2. analyse the impact of policies, budgets, and programmes on health;
3. state the roles of the three tiers of Government in health care provision in Nigeria;
4. describe the importance of human resource and financial management in health care delivery;
5. identify components of the organisation, financing, and delivery of health care in Nigeria;
6. demonstrate effective leadership and communication skills within context of health care;
7. explain the administrative and management system for effective health care delivery; and
8. demonstrate the ability to apply management and administrative concepts in health.

Course Contents
The course is designed to acquaint students in the discipline of health sciences with management information and skills in matters relating to all aspects of the national health care systems, (the primary health care, the secondary health care and the tertiary health care systems). Students should learn organisational behaviour, theories of motivation and managerial skills. The course gives an overview of the national health policy and the development of the national health systems. The roles of governments at each of the levels and those of the NGOs are highlighted. Modern concepts and elements of management by objectives are reviewed in the context of health planning, implementation and health programme monitoring and evaluation. Principles and practice of Health Insurance Scheme and challenges of the programme. Modalities for leading health team and organising health care activities are as well highlighted Methods and means of managing human and material resources are also covered. The course covers also various aspects of selected international health care system.

PHS 403: Health Sociology (2 Units C: LH 30)

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

1. explain major social issues related to population and individual health;

2. demonstrate sound understanding of concept of sociology and illness;
3. explain health issues from sociological perspective;
4. evaluate concept of health from different sociological approaches;
5. explain health inequalities and their consequences;
6. demonstrate knowledge of ethnic inequalities, gender inequalities and social inequalities of health; and

7. discuss the modalities of care of the elderly and orphanage.

Course Contents

This course reviews social determinants of health. How education status, social status and economic status affects health. Sociological perspective of health. The functionalist approach, the conflict approach, and the interactionist approach. The social issues in health with reference to the services offered such as social welfare services, care of the motherless babies, care, and rehabilitation of the handicapped, care of the elderly and the care of destitute/beggars are discussed. Inequality and social class in relation to health. Ethnicity. gender and health. Health equity and social stigmatisation are taught.

PHS 405: Community Health Care Practicum II (2 Units C: LH 15; PH 45)

Learning Outcomes

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

1. undertake a community-based need assessment and propose how the community can address its health needs;

2. organise, plan, and participate in a community health improvement programme; and
3. develop health education material base on the culture and religion of the community.

Course Contents

The Community Health Practicum gives the students the opportunity to participate in on-going intervention programs and activities at the Local Government, the community and health facility levels. The students are to produce reports on health systems research based on their experiences at different levels of activities. At the end of the community practicum, students are expected to present his results/findings in the form of a seminar to the department which shall be graded.

Note This consists of lectures and guided visits to various public health programmes including the following: Environmental health services including visits to water treatment works, sewage treatment plants, market and other food processing factories and abattoirs, refuse disposal systems* and many other. *Community Welfare Services lectures and visits to remand home. Homes for motherless and handicapped children, prisons, schools for the deaf* and many others. *Public Health Department: Lectures and visits to familiarize with the activities of the department. Maternal and Child Health Services; lectures and visits. Public Health Laboratories; lectures and demonstration on their activities including testing of water* and

many others. *Control of Communicable diseases, lectures and visits to the tuberculosis clinic and the infectious diseases clinics. Occupational Health Services; lectures and visits to selected industries.*

PHS 409: International and Global Health (2 Units C: LH 30)

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

1. demonstrate knowledge of history and initiatives of global health;
2. identify major players and explain their role in promoting international health;
3. discuss models of assistance in global health;
4. identify sources of international health funding and assistance;
5. Identify international method and system of disease control through the international border- land borders, sea ports and airport;
6. demonstrate clear understanding on the workings of Agencies such as WHO, UNICEP, UNDP; and recognise the role of international donor agencies and philanthropic organisations and their role in global health;

Course Contents
The course introduces the students in the public health program to the historical perspective of the international health agencies. It also highlights the policies governing international collaboration and coordination on issues relating to health and development at the global level. Various agencies involved and activities of these bodies are also highlighted. Historical backgrounds to the development of international collaboration in health issues are covered. Special attention is devoted to the activities of the United Nations Agencies, particularly those of the W.H.O, UNICEF, UNDP, UNFPA and Bilateral agencies such as ODA, USAID, the World Bank, amongst others. The policies governing International Coordination of Global health are also reviewed. Students should be taught role of International Philanthropic organisations such as Melinda and Bill Gates Foundation in Health care, also sources of funding global Health and access to funding.

PHS 411: Principles of Pharmacology, Therapeutics and Substance Abuse (2 Units C: LH 30)

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

1. describe the method through which drugs are discovered, tested, produced, and finally approved for use;

2. explain the role of pharmaceutical drugs in health and society;
3. demonstrate knowledge of classification of drugs and the most commonly used drugs in health care;

4. describe the process of drug procurement, storage, and usage in a health centre;
5. demonstrate knowledge of drug testing to identify fake and counterfeit drugs;
6. understand the role of complementary and alternative medicine in health care system.;
7. identify crises situation concerning substance abuse and determine appropriate action;
8. discuss the effect of alcohol and other drugs to human body;
9. identify sociological factors associated with alcohol and other substances abuse;
10. demonstrate knowledge of treatment issues associated with alcoholism and other substance abuse; and
11. advocate enhanced method of alcohol use that will reduce damage to health.

Course Contents

The course is designed to provide the students with an understanding of the sources of drugs. Classification and composition of drugs. Alternative and complementary medicines. Use and abuse of drugs. Use and abuse of alcoholic beverages. Action and reaction of drugs and alcoholic beverages (prophylactic, therapeutic and toxicological effects). Legal control of drugs and alcoholic beverages. The concepts of drugs and alcoholic beverage use and abuse. Role of NAFDAC in standardisation of drugs. Fake and counterfeit drugs. NDLEA and fight against drug abuse.

PHS 400: Research Project (6 Units C: PH 135)

Each student is expected to identify an area of research interest and develop a research proposal that would enable the student to conduct a study under the supervision of faculty staff. A suitable research topic must include primary data collection using either of the discussed methods of data collection. Secondary data may be collected and analysed to prove a hypothesis or an existing environmental condition or social factors affecting health.

Minimum Academic Standards

BU-PHS 416 Internship (12 Units C: PH 135)

Internship will be taken in the 4th year eight Semester of the B.Sc programme. Active internship engagement- Students must begin making arrangement with potential internship placement sites to be undertaken by all the students in their 4th year.

Senate-approved relevance

An internship is a professional learning experience that offers meaningful, practical work related to students of public health. It provides students with the opportunity for career exploration and development, and to learn new skills. Public Health students will understand the operations of the various organization/sector that collaborate with public health professional for achieving ground public health goals. This aligns with Babcock University mission and vision to producing competent public health administrators who will understand various ways health sector is operationalized for social action and sustainable public health development.

Overview

An internship ensures the integration of classroom experiences with public health practice. Internships are cooperative efforts between the University and various non-profit and for-profit community partners and governmental agencies to provide students with experiences that will help them be successful in their career as public health professionals. The internship program will enable the students as they are rotated through the Local Government Primary health Care Department, the State Ministry of Health, certified Local and International Non-Government Organizations such as World Health Organization (WHO), Nigeria Centre for Disease Control (NCDC) and affiliate within and outside the country. The students are required to sit and pass a comprehensive examination at the end of the internship which will cover core areas of the internship program. An international internship exposure with in overseas and in collaboration with sister institutions overseas will impart our graduate and give them international hands on experience. This creates opportunity for student's program exchange and exposes our students to the international global health and emergencies practices as they volunteer and participate as an interns where we have the need such as our Adventist Relief Agency (ADRA).

The course is an integral part of the program, which will take place towards the end of the program and it will provide students with additional experiential learning opportunity such that they put into practice the skills for planning, implementing and evaluating health-related programme. The students will be divided into groups as they will be rotated towards the various health systems.

Objective

The objectives of this course are to:

1. Provide students with a public health experience.
2. Learn how the site fits into the public health system.
3. Acquire an understanding of the health problem(s) addressed by the site.
4. Learn the organizational structure and functions of the site.
5. Learn skills in establishing and maintaining relationships with site staff and clients, including persons of different cultural and ethnic backgrounds.
6. Gain experience in assessing the public health needs of a community.
7. Gain experience in developing public health programs that are based on sound principles.
8. Develop and utilizing interpersonal communication skills.
9. Gain experience in the evaluation of public health programs.
10. Learn about current and potential sources of funding to support public health programs

Learning Outcomes

After completion of the internship, each student should be able to demonstrate knowledge, skills and competencies acquired during the internship. Success of the internship experience should result in students being able to

1. Develop goals and objectives based on health promotion concepts and skills.
2. Implement steps to meet personal goals and objectives for the internship.
3. Initiate decision-making and strategic planning for health promotion program design, implementation, and evaluation at the workplace.
4. Exhibit ability to make sound independent decisions regarding agency needs and program

planning.
5. Demonstrate good time management skills for the timely completion of assignments.
6. Provide clear, concise, and thorough documentation of the internship experience.
7. Maintain effective working relationship with worksite peers and onsite supervisor.
8. Gain an understanding and appreciation of the roles, duties, and responsibilities of full-time professionals in Health Promotion.
9. Describe firsthand knowledge and experience with public health services including federal, state and local public health departments (e.g., Federal Ministry of Health, Environmental Protection Agency, Housing and Urban Development, etc.).
10. Demonstrate firsthand knowledge of community agencies, organizations, or other workplaces in which public health interventions and/or health risk assessments are carried out, including their mission, organizational structure, primary methods used to prevent illness and injury, any specific populations targeted, and their unique health risks.
Course content
The internship must take place in a setting that is related to the degree and career goals of the student. The types of acceptable locations include, but are not limited to, health-care settings, corporations, and community, state, and federal health agencies. The internship will provide the student with on-site work experience to assist them in developing entry-level job skills, and increased knowledge about agency operation. These experiences help prepare the undergraduate to meet the challenges of the times and to realize his/her own potential in the health promotion field. Because academic credit will be awarded, faculty supervisors will require interns to complete a number of assignments such as writing report and taking parts in presentation.

Equipment
The following academic and administration equipment shall be available in the stated minimum quantity:

- At least 1 computer to 5 students
-
- Computers and Printers for the Department
- Overhead projector with its accessories
- Photocopying machine
- Photo Camera
- Video Camera
- Audio visual equipment for the Media Center
- Video/Tape Recorders/Player
- Television
- VCR (Video recording / Playback)
- DVD/CD players
- Multimedia Projector
- Slide Projector and Slide
- Equipment for field work such as Van for health outreach programmes, Scales height and measurement, hand gloves, safety helmets, reflective jackets. White Board

Public health museum

Drones and micro – video cameras for aerial environmental/community observation

Staffing
The selection of a staff member shall be based on; educational qualifications, experience, scholarly achievements in research and community service, teaching and positive-influence personality. See the academic staff requirements for the Discipline. The academic staff to Student ratio should be at least 1:15.

Library
There shall be enough learning resources materials such as textbooks, periodicals, Journals in the relevant subject areas. Also, there should be advanced Information technology equipment and resource materials available.

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