UNIVERSITY OF BENIN, BENIN CITY, NIGERIA

CENTRE OF EXCELLENCE IN REPRODUCTIVE HEALTH INNOVATION

STUDENTS' HANDBOOK

2018/2019 ACADEMIC SESSION

African Centre of Excellence
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JULY 2018

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PREAMBLE

This Hand Book is designed to provide basic information on the University of Benin Centre of Excellence in Reproductive Health Innovation (CERHI) Programme. It is only a supplement to the Official Students' Hand Book (OSHB) of the University of Benin as regards the CERHI Programmeand not meant to duplicate the content of the latter in any form. Therefore, any information not contained in this book will be found in the OSHB and any other recognised channel of communication of the University of Benin.

BRIEF NARRATIVE SUMMARY OF UNIBEN CERHI

Background: Reproductive health (RH) has been defined as: "a state of complete physical, mental and social well-being and not merely the absence of diseases or infirmity of the reproductive system". RH addresses the reproductive processes, functions and systems at all stages of life, and includes fertility regulation, safe motherhood, infant and child survival, sexually transmitted disease including HIV/AIDS, and the prevention of unsafe abortion. The World Health Organization (WHO) estimates that RH accounts for about 20% of the global burden of disease. As a result of its effects on population dynamics, its practice is a central consideration in global development. It was therefore not surprising that five of the eight Millennium Development Goals agreed to by world leaders for promoting global development at the turn of the new Millennium were founded on the principles of RH.

A major development challenge in West Africa is the poor state of reproductive health as evidenced by high rates of fertility, maternal mortality, and unsafe abortion in the region. All of the 15 countries in West Africa have some of the lowest contraceptive prevalence rates and highest population growth rates in the world, a situation which presents huge economic and social burden with adverse consequences for the region's growth and development. Nigeria as an example currently has the second highest number of maternal deaths, the highest number of infant deaths and the second highest burden of HIV/AIDs in the world. The country also has the highest number of under-aged marriages, gender-based violence, and sex trafficking in Africa. Despite this high burden of reproductive ill-health, Nigeria has yet to integrate RH into its health and educational system due to a deficit of qualified human resources to address this developmental challenge. There are currently limited educational programs that build the capacity of undergraduate and post-graduate students to undertake service delivery and research for the purpose of improving key indicators of RH in the region. There is a need to raise an adequate number of human resources to develop and implement appropriate policies and programs for reducing rapid population growth and advancing growth and development in the region. It is only

through such efforts that the region will witness genuine growth and planned comprehensive development anytime soon.

Programme Goal: The Centre of Excellence in Reproductive Health Innovation (CERHI) will build capacity within West Africa's tertiary educational system for implementing high quality training and applied research for reproductive health professions to tackle policies and programs for reducing the region's high burden of fertility, unsafe abortion, maternal mortality and HIV/AIDS.

Specific Objectives of the Centre include the

1. Training of students and technical experts/policymakers through short courses on relevant fertility, maternal mortality, HIV/AIDS and reproductive health policy topics in the region.
2. Training of Masters in reproductive health, public health, health economics and nursing.
3. Training of PhDs in reproductive health, public health, and nursing.
4. Development of regional laboratory capacity to support HIV/AIDS and other reproductive health related problems.

Methodology: Under CERHI, short term courses, Masters and PhD courses of study in RH, public health, nursing, health economics, and reproductive health law will be re-designed and reviewed at 3 levels: first by the individual departments, followed by a curriculum review workshop involving regional, selected international partners and industry stakeholders and sector planners which is a novel approach to curriculum development. Finally, the Departments will team up with identified international partner institutions to finalize the curricula and the Center will then be responsible for coordinating the execution of these novel programs. The idea is to ensure that the curricular meet specific regional development needs, and that they are relevant globally to resource limited settings and are of sufficient quality they can be accredited by international accreditation bodies. Through CERHI's regional and international collaborations the best of the region's resources will be brought together making it a true Centre of excellence in the discipline of reproductive health. New applied research methodologies will also be developed and staff will be trained to use both the curricular as well as these methodologies. Faculty and students will be recruited from the West African region to build regional capacity and collaboration.

Partnerships: The center will seek national, regional and international partnerships that will enhance the learning environment for students, promote faculty development, collaborative applied research and new knowledge in the field of reproductive health. The project Departments at UNIBEN and in regional

partner institutions are: Public Health, Health Economics, Reproductive Health and Nursing. The national university partner institutions are the University of Ibadan (UI) (coordinated by Prof A. Oladokun) contributing faculty in public health, health economics, nursing faculty and co-supervision of masters and PhD students and the Ahmadu Bello University (ABU) (coordinated by Dr Nana Madugu) which will provide a relevant site for short term courses especially on high fertility as well as co-supervision of masters and PhD students. The national public partner the National Institute for Medical Research (NIMR) (coordinated by Dr AG Ohihoin) provides a site for outreach periods for faculty and students, laboratory capacity for HIV/AIDS research and location for short courses in laboratory medicine. We will also involve private industry partners including General Electric Healthcare, Phillips International, Thomson Reuters, EMZOR and Fidson Pharmaceuticals which provide opportunity for outreach periods in new reproductive health technology field that impact on the provision of family planning and reduction of maternal mortality. In Nigeria, the non-governmental and civil society organizations provide the majority of reproductive healthcare. Outreach periods for students with these groups will provide opportunity for thesis project sites and for practical experience working in the RH sector.

Regional partners include the University of Benin in Cotonou (UBC) which would co-supervise thesis students and provide faculty for exchange in the area of public health. The University of Ghana (UG) (coordinated by Professor Richard Adanu) would provide for faculty exchange in public and reproductive health, undertake joint research projects and co-supervision of thesis students as well as share research facilities. The University of Niger would provide a site for collaborative research for student and faculty projects and faculty exchange. The regional research lab the Navrongo Institute will be a partner for outreach periods for faculty and students to strength laboratory skills.

The key international partner institutions whose faculty would be engaged in the project include:

The Queens University, Belfast, United Kingdom (Coordinator - Professor Yun Yun, Professor of Toxicology) will collaborate in the area of advanced nursing degrees, Harvard School of Public Health in public health and reproductive health, the University of Toronto in reproductive health law and the University of Maryland reproductive health applied research.
University of California, Berkeley, USA, (Coordinator - Professor Malcolm Potts, Emeritus Professor of Obstetrics and Gynaecology), University of Alabama at Birmingham, USA(Coordinator - Prof Andrzej Kulczycki, Professor of Health Care Organization and Management) and theAfrican Academy of PublicHealth,

Dar es Salaam, Tanzania (Coordinator - Dr. Mary Mwanyika-Sando, Deputy CEO)

The international partner institutions will work with specific Departments within CERHI to review and develop new curricula, conduct trainings and collaborate in running short courses and provide additional mentorship to PhD and Masters Students, and participate in students/faculty exchange and visits.

Important Changes Made: The University of Benin strongly believes that CERHI will make significant contributions to improving the quality of training of reproductive health professionals in West Africa through improving training, applied research and research infrastructure. This center will implement new short courses, masters degrees and PhD degrees in public health, nursing, reproductive health and health economics. Within the university, the academic approval system has fast tracked the center processes by designating individuals devoted to center related tasks allowing rapid development of the center. A key strategy to this is pooling resources from partner institutions for sensible and cost-effective use of faculty for teaching and student thesis mentorship. These partnerships between national, regional and international institutions will distinguish the Centre ensuring that it makes a sustainable contribution to reducing the present high rates of fertility, maternal mortality, unsafe abortion and HIV/AIDS in the region.

Key Outputs for CERHI's activities

The Key Outputs for CERHI's activities include the following:

1) New Masters and PhDs programmes in reproductive health, public health, nursing and health economics
1) Staff and students participating in outreach experience into the private sector and other regional partners
2) Delivery of short courses on reproductive health related topics.
3) Formation of regional partnerships to increase regional faculty and students at the center
4) Increased academic productivity by center student and faculty through academic paper output and research grant applications

The approved course fees are stated below while the courses and curricula are stated under the relevant departments.

COURSE FEES

Nigerian Students

1. Application Fees.....N20,000.00
2. School fees.....N250,000.00
3. Acceptance / Clearance Fees.....N45,000.00
4. Accommodation N37,000.00

Total.....N352,000.00

NOTE* ** THE SCHOOL FEES IS SUBJECT TO REVIEW FROM TIME TO TIME

Foreign Students

Consolidated Fees (for items 1- 4 above**).....US$2,500.00**

DEPARTMENT OF COMMUNITY HEALTH
SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

CURRICULUM FOR THE AWARD OF
MASTER OF PUBLIC HEALTH
IN
REPRODUCTIVE AND FAMILY HEALTH

UNIVERSITY OF BENIN
BENIN CITY

UPDATED FEBRUARY, 2018

A. PREAMBLE/HISTORICAL BACKGROUND OF THE PROGRAMME

For about three decades, the Department of Community Health has been conducting surveys and interventions in urban and rural communities largely in the current Edo State. Many of these programmes have focused on Reproductive and Family Health at household level and school levels. These programmes are conducted as parts of undergraduate and postgraduate training curricula, including theses, in University of Benin (MBBS; MPH) and University of Benin Teaching Hospital (National and West African Postgraduate Medical Colleges). The programme efforts have largely focussed contributing to reduction of maternal and childhood deaths in Nigeria. The MPH and Fellowship programmes have been the mainstay of the Reproductive and Family Health training at postgraduate level. The increasing human resource gaps in top-level expertise in the subspecialties of Public Health have long opened up the need for multiple masters' programmes in Public Health. This has led to the conception of the Master of Public Health in Reproductive and Family Health and the Doctor of Philosophy in Public Health (Reproductive and Family Health) programmes. The emergence of the Centre of Excellence in Reproductive Health Research and Innovations (CERHRI) provided the trigger to develop these programmes.

B. PHILOSOPHY OF THE PROGRAMME

The underlying philosophy of the programme has the following components.

1. Preventable morbidities and mortalities related to reproductive and family health continue to constitute great burdens on societies and families in developing countries, especially Nigeria. In particular, maternal and child

deaths are extremely high in Nigeria and have been shown to be the most distinguishing features between developed and developing countries.

2. Efforts to correct this challenge have not only been insufficient but have been largely lacking in technical content that integrates the underlying social-cultural, economic, political and medical factors.
3. While maternal and child morbidities and mortalities often receive separate disciplinary attention, they have been widely shown to be closely linked in terms of their underlying social-cultural, economic and political determinants. These determinants and their resulting maternal and child morbidities and mortalities are closely interwoven with and deeply rooted in family life. Reproductive health interventions and training therefore deserve separate and integrated approaches in the context of family life.
4. The programme was developed based on the conviction that an integrated public health approach, led by human resources with high-level technical skills and competence, is a major and desirable contribution to the significant reduction of morbidities and mortalities related to reproductive and family health, especially maternal and child deaths.
5. The programme recognises reproductive and family health as a multidisciplinary subject with a minimum definition that includes those provided by the World Health Organisation (WHO) and the International Conference on Population and Development Programme of Action (ICPD POA). A definition of reproductive and family health should include a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity of the reproductive system and the family; it is a constellation of methods, techniques and services that contribute to reproductive and family wellbeing, which includes sexual health, designed to enhance the quality of life and personal relations.

C. AIM OF THE PROGRAMME

The overall aim of the programme is to develop human resources with high-level technical skills and competence to provide and lead integrated preventive and promotive public health interventions in reproductive and family health.

OBJECTIVES

The following are the objectives of the programme.

1. To provide training that incorporates the historic, sociocultural, economic, political and conflict-related contexts that impact on the health of women, children and families.
2. To provide training that covers, but not limited to, family planning, infertility, safe motherhood, reproductive tract infections, gender-based violence, genital tract cancers and human sexuality and responsible parenthood.
3. To build capacity for applying general public health approaches in addressing reproductive health challenges.
4. To incorporate best practices in teaching, learning and research in reproductive and family health in line with the objectives and programmes of CERHRI.

D. LEARNING OUTCOMES

Upon completion of the MPH in Reproductive and Family Health training programme, graduates are expected to be able to:

1. Identify the causes and effects of major health problems that occur during pregnancy, infancy, childhood and adolescence.
2. Assess the health care needs of women and children.
3. Integrate the understanding of life course with multiple determinants of health in developing solutions to reproductive and family health challenges.
4. Conduct research related to the health and well-being of families, especially women and children.

5. Demonstrate the ability to provide scientific, including epidemiological, evidence as basis for developing reproductive and family health programmes.
6. Manage (plan, implement and evaluate) sexual, reproductive and family health programmes in diverse settings.
7. Head teams and organisations involved in reproductive and family health programmes.

E. ADMISSION REQUIREMENTS

The following two requirements must be met

1. A first degree in a health-related science, not below 2nd Class.
2. A certificate of completion of or exemption from the National Youth Service Corps. (Foreign students are exempted from this requirement).

A qualification in a field related to reproductive and family health may be an advantage.

Applicants may be required to sit for a qualifying entrance examination.

F. PROGRAMME DURATION

The programme will run in two forms – a 24-month full-time programme and an option of a 36-month part-time programme. The components of the programme are coursework (including a practicum) and dissertation/thesis. The coursework and synopses are described in additional sections below. The proposal for the dissertation/thesis is expected to be completed by the end of the first semester of the programme. The programme components and durations are outlined in Table 1.

Both full-time and part-time students admitted in the same session shall run the coursework simultaneously in the first session (12 months). The full-time students are required to complete their dissertations within the 12-month duration of their programme, along with their coursework. The part-time students are required to complete their dissertations in the second session of their 24-month

programme during which they may redo the courses failed in or carried over from the previous session.

Table 1: Structure and duration of the programme

Components	Duration				Credit Units
	Part-time		Full-time		
	Semesters	Months	Semesters	Months	
Coursework and Field Practicum	6	18	4	24	36
Dissertation/thesis	6	18			4
Total	**12**	**36**	**4**	**24**	**40**
Maximum	**12**	**48**	**4**	**24**	**-**

G. CONDITIONS FOR GRADUATION

To graduate, candidates must pass all of the following.

a. A written examination for each course at the end of the respective semesters. A written examination is not required for the practicum which will be scored as described in the appropriate section below.
b. An oral defence for the completed dissertation/thesis, in line with Postgraduate School guidelines.

H. CONDITIONS FOR REPEAT AND WITHDRAWAL

A student who fails a course in any year must re-register for the course in the following year, if eligible.

A **full-time** student who fails to meet any of the following conditions shall be required to withdraw from the programme:

a. A minimum of 10 credits at the end of the first semester of the programme.
b. A minimum of 20 credits at the end of the second semester of the first year of the programme.
c. Completion of the programme in a maximum of 24 months (4 semesters).

A **part-time** student who fails to meet any of the following conditions shall be required to withdraw from the programme:

a. A minimum of 10 credits at the end of the first year of the programme.
b. A minimum of 20 credits at the end of the second year of the programme.
c. Completion of the programme in a maximum 48 months (8 semesters).

I. EVALUATION AND GRADING PROCEDURE

The evaluation and grading shall be done using the following scale (Table 2). A student must score a minimum of 50% (C grade) to pass a course. The course assessment will be based on 30% continuous assessment and 70% examination.

Table 2: Evaluation and Grading

Alphabetical Grade	Percentage	Value interpretation	Points
A	70 – 100	Excellent	5
B	60 – 69	Very Good	4
C	50 – 59	Pass	3
D	0 – 49	Fail	0

J. COURSEWORK

The coursework lasts for two semesters. The details are shown in Tables 3 and 4.

Table 3: First Semester

Course Code	Course Title	L	T	P	CU
MRH 811	Family Structure and Functions; Geriatrics	2	0	0	2
MRH 812	Maternal Morbidity and Mortality; Selected Morbidities of Women	2	0	0	2
MRH 813	Child Morbidity and Mortality; Selected	2	0	0	2

	Morbidities of Children				
MRH 814	Health Services and Control Programmes in Reproductive and Family Health	2	0	0	2
MPH 812	Biostatistics	2	0	0	2
MPH 813	General Epidemiology	2	0	0	2
MPH 816	Health Promotion, Health Education and Social Mobilisation	2	0	0	2
MPH 817	Quantitative and Qualitative Research Methods; Research Ethics	2	0	0	2
MPH 818	Demography	2	0	0	2
	Elective courses (one required)				
MPH 815	Primary Health Care	2	0	0	2
MPH 831	Health Informatics and Computers in Public Health Practice	2	0	0	2
MPH 832	Health and Development; Health Project Management	2	0	0	2
	TOTAL				**20**

Table 4: Second Semester

Course Code	**Course Title**	**L**	**T**	**P**	**CU**
MRH 821	Human Sexuality	2	0	0	2
MRH 822	Adolescent Reproductive Health; School Health	2	0	0	2
MRH 823	Gender Equity and Equality; Men's Health	2	0	0	2
MRH 824	Legislations, Conventions, Policies and Ethics Related to Reproductive and Family Health	2	0	0	2
MRH 825	Field practicum	0	0	2	2
MPH 825	Public Health Nutrition	2	0	0	2
MPH 827	Health Economics	2	0	0	2
MPH 828	Health Policy, Planning and Management	2	0	0	2
MRH 899	Dissertation/thesis	0	0	4	4
	TOTAL				**20**

GRAND TOTAL = 40 CREDIT UNITS

COURSE SYNOPSES

MRH 811: Family Structure and Functions; Geriatrics

This course exposes students to the structures and functions of families, including the differences across cultures; types of marriages; divorce and remarriage; types of families; evolving trends in types of marriages and family settings; roles of women, men, and children; adoption and fostering; family income and expenditure; power structure and dynamics, including decision-making, in the home; cultural factors and practices related to sex, reproduction and the family; bereavement. The course will also include theoretical and practical components of responsible parenthood.

Geriatrics in this course covers definitions of the elderly, the aged etc; ageing and life course; planning for ageing; family and community roles of the elderly; the elderly and African cultures; problems of the elderly – physical, psychological, social, psychiatric, economic, etc. Care of the elderly will cover the public health aspects of domiciliary care of the elderly; hospital care of the elderly; management of geriatric health services; old peoples' homes; social welfare services for the elderly; health workers working with family members to provide domiciliary and hospital-based care; control programmes targeted at the elderly; care of the dying elderly.

MRH 812: Maternal Morbidity and Mortality; Selected Morbidities of Women

This course addresses the application of epidemiological, clinical and social principles to maternal health, morbidity and mortality, including their rates/ratios. It covers physical, biological, social, cultural, economic, behavioural, health-system-related and other determinants of maternal health and maternal death, in vertical and integrated terms; household, community, multidisciplinary, multisectoral, intergovernmental and international approaches to the reduction of

maternal deaths; underage pregnancy; phases of delay model as an example of a model for studying the determinants of maternal death; safe motherhood initiative. Male involvement in reproductive health: fewness of male methods of family planning; male involvement in reduction of maternal morbidity and deaths in different settings – contraception, pregnancy, delivery, breastfeeding, child care, etc; inter-partner communication on sexual, reproductive and family health; barriers and solutions to male involvement. Women in conflict situations will be addressed in local and global contexts. Other topics include maternal health and millennium development goals in developing countries, including Nigeria.

Epidemiology and control of the following will also be covered – sexually transmitted infections, spontaneous and induced abortions; pelvic inflammatory disease, cancers affecting women e.g. ca cervix and ca breast; obstetric fistulae; female genital cutting.

MRH 813: Child Morbidity and Mortality; Selected Morbidities of Children

This course addresses the health of children and the application of epidemiological principles to newborn, infant and child morbidity and mortality including their rates/ratios. It focuses on the physical, biological, social, cultural, economic, behavioural, health-system-related and other determinants of newborn, infant and child death, in vertical and integrated terms. This understanding will be used as a framework for studying household, community, multidisciplinary, multisectoral, intergovernmental and international approaches to the reduction of child deaths. Examples of specific topics to be covered include the healthy child (social, mental, physical, etc); common childhood morbidities; causes of childhood mortality; prevention and control of child morbidity and mortality; children in conflict situations in local and global contexts; child health and millennium development goals in developing countries, including Nigeria.

Epidemiology and control of the following will be covered – neonatal sepsis, malaria, tuberculosis, lower respiratory tract infections, sickle cell disease, malnutrition (covered in a separate course) diarrhoeal diseases, vaccine-preventable diseases, congenital heart diseases, Down's syndrome, skin infections, etc.

MRH 814: Health Services and Control Programmes in Reproductive and Family Health

This course provides an overview of health services in reproductive and family health. It further provides learning in the following categories of care – preconception, antenatal, delivery, postnatal, neonatal, child, post-abortion, etc; infertility and intervention options, including assisted reproduction; individual strategies in "child survival strategies"; the public health aspects of these services will be highlighted; key services (e.g. emergency obstetric care) to reduce maternal deaths.

The course also covers reviews and critiques of historical and contemporary control programmes in reproductive and family heath and provides an opportunity for students to learn skills to develop control programmes in reproductive and family health. Under supervision, students are required to go through the archives of local (state), national and international institutions and other sources to identify current and past control programmes. Maternal Newborn and Child Health Week, Midwives Service Scheme and sterile disposable delivery pack ('mama's kit') will be reviewed.

Community-level and urban-rural disparity in reproductive and family health services will be highlighted.

MPH 812: Biostatistics

This course deals with numeracy in medicine and health care, including vital, descriptive and analytic statistics.

Descriptive statistics covers types of data – quantitative/qualitative, ungrouped/grouped and discrete/continuous; scales of measurement and their implications for statistical methodologies; methods of data presentation – numerical and diagrammatic; measures of central tendency (location) – arithmetic and geometric means, median, mode; measures of dispersion – range, variance, standard deviation, coefficient of variation; measures of partition – quartiles, deciles and percentiles; types of distribution – uniform, binomial, normal, skewed, log-normal, Poisson; application of normal distribution to the screening of individuals; sources of health data including their strengths and weaknesses.

Analytic statistics covers probability theory and rules and their applications; the standard normal curve – its description, equation and; sampling methods – probability and non-probability methods; statistical inferences; the null and alternative hypotheses; sampling errors; hypothesis testing; statistical errors in tests of significance; parametric and non-parametric tests; level of significance and level of confidence; point estimates – (e.g. p values, odds ratios, relative risks) and interval estimates (e.g. confidence intervals); the standard normal curve; standard error of the mean and standard error of proportion; Z distribution and Z tests for the difference between means and the difference between proportions; t-tests; chi-squared tests for the difference between proportions, the goodness-of-fit test and McNemar test; analysis of variance (ANOVA); Wilcoxon signed rank sum test for paired data; Mann-Whitney U test for unpaired data; Kolmogorov-Smirnov two-sample test; power and sample size estimations; standardisation of rates; risk estimation; correlation; linear and logistic regression analyses; survival analysis, including the construction of a Kaplan-Meier estimate of survival function that describes the 'survival experience' of a cohort of subjects; interpretation of the results of a log-rank test in the context of comparing

the ‘survival experience’ of multiple cohorts; use and abuse of statistical methods in biomedical literature.

MPH 813: General Epidemiology

General epidemiology in this course is aimed at guiding the student into the knowledge of epidemiological principles as a framework for understanding their uses and applications to health-related states, especially the control and prevention of diseases and injuries. It covers in details the study of the frequency, distribution, determinants and deterrents of diseases and health-related states in human populations and the application of these in disease control and to promote, protect and restore wellbeing. Examples of specific topics covered in this respect include the definition, scope, uses and achievements of epidemiology; measurements in epidemiology (epidemiologic methods) – counts, proportions, percentages, rates, ratios; disease distribution; morbidity and mortality statistics; biologic determinants of disease (epidemiological triad) – agent, transmission and host; other determinants (behavioural, social, economic, political, legal, environmental, occupational, etc); methods of disease control and the establishment of control programmes; investigation and control of epidemics; disease prevention – levels and strategies; disease screening – definition, types and criteria; validity (sensitivity, specificity, positive and negative predictive values) and accuracy of screening tests; surveillance and response (notification); descriptive, analytical and experimental epidemiology; epidemiological study designs – observational and experimental, and their subtypes; potential errors in epidemiological studies – random and systematic errors; confounding; concept of causation in epidemiology – sufficient and necessary causes, single and multiple causes, causal factors, interaction, hierarchy of causes; criteria for establishing causation – causal inference as elaborations of Bradford Hill’s criteria; inductive and deductive reasoning; epidemiological transition.

MPH 815: Primary Health Care

This course examines the history and development of primary health care (PHC), including the Alma Ata Declaration. It covers the history, philosophy, development and scope of PHC; components of PHC – international and national (Nigeria); principles of PHC – equity, appropriate technology, community mobilisation, community participation, intersectoral collaboration, self-reliance, etc. It also addresses the stages and processes involved in establishing and re-establishing a PHC system; PHC health services and health facilities; integrated health services; ward minimum health package; human resources in PHC – training, roles and responsibilities; management of PHC at all levels; the Medical Officer of Health (PHC Coordinator); Bamako initiative; PHC and the National Health Policy of Nigeria; referral services; PHC implementation in Nigeria – strengths, weaknesses, opportunities and threats.

MPH 816: Health Promotion, Health Education and Social Mobilisation

This course deals with the nature, scope and methods of health promotion including health education. Health promotion addresses the empowerment of the total population to take control of their health and improve it. The course covers health promotion actions/strategies – building healthy public policy, creating supportive environments, strengthening community actions, development of personal skills and reorientation of health services; Ottawa Charter for Health Promotion; National Health Promotion Policy.

Health education in this course covers the definition of health education and the evolution of contemporary terminologies in health education – behaviour change communication, behaviour change intervention, and information, education and communication, etc; individual, group and mass health education methods, including social networks; audiovisual media and technology in health

care; counselling – strategies, techniques, micro-skills and stages, and qualities and attributes of a good counsellor; theories and models of communication and behaviour change; the health communication process; knowledge, attitude and practice; management of health education programmes; HIV counselling and testing.

The course also covers group development and group dynamics; community theories; community development; social mobilisation; community mobilisation and community participation; communication strategies for social mobilisation; social marketing strategies; advocacy.

MPH 817: Quantitative and Qualitative Research Methods; Research Ethics

This course is designed to improve the students' ability to carry out research. Topics to be covered include development of proposals; types of research investigations; general and specific purposes of research; the research process; research problem/research question; objectives; review of relevant literature; study design; sample size and power; sampling methods; data management – collection, collation, presentation, analysis; reporting results; discussion/ interpretation of results; conclusion and recommendation; report writing.

This course also covers qualitative research methods, such as focus group discussions; key informant interviews; in-depth interviews; free listing interviews; participant observation (ethnographic) methods; mystery client trials; the Delphi technique; reporting and analysing results in qualitative research; mixed methods.

Research ethics themes covered include definition and classification of ethics; introduction to foundation theories – value ethics, virtue ethics, deontologism, utilitarianism, principlism; protection of research participants including case studies e.g. Nazi experiments/Nuremberg Code, Tuskegee studies, Trovan® trial in Nigeria; standard of care and HIV/AIDS research; ethical issues

in Ebola Virus Disease epidemic and treatment – 'Zmapp', nano silver, etc; principlism – respect for autonomy, beneficence, non-maleficence, justice; requirements for ethical research; research protocols; research integrity; National Code of Health Research Ethics; international research; international codes of research ethics; ethical review of research proposals.

Proposal writing skills will also be taught.

MPH 819: Demography

Demography in this course introduces students to the structure, size and dynamics in populations as a basic science for understanding public health. Areas covered include censuses; vital statistics; structure, size and changes in populations (population dynamics – births, deaths, migration) including their measurements and determinants; sources and uses of demographic data; life expectancies; population theory; population pyramids; demographic transition; dependency ratios; population projection; policy implications of demographic profiles; replacement ratios; life tables; population and health; population policies.

MPH 831: Health Informatics and Computers in Public Health Practice

The aim of the course is to guide students to the knowledge of sources and importance of health information; basic data processing; components of data/ information management cycle (collection, collation, analysis, presentation, interpretation, etc); disease surveillance and notification locally, nationally and internationally, including integrated disease surveillance and response in Nigeria; modern technology in health informatics – eHealth, including mHealth; internet sources of health information for service and research.

The course also includes introduction to computers; computer applications in medicine, including public health – diagnostic and therapeutic clinical practice, biostatistics and research; problems and prospects of computers in public health

practice; management system for health information in Nigeria and the relevant policies; electronic, including internet, databases for health services management and research; ethical issues in managing databases; the role of computerised decision support systems.

MPH 832: Health and Development; Health Project Management

Health and development in this course aims at guiding students into the knowledge and understanding of health as a component of development at personal, family/household, community, national and global levels; sustainable development; the interdependence between health and development. It addresses the social, infrastructural, political, cultural, and economic determinants of health and how they link through biological determinants; the vicious cycle of poverty, ignorance and disease; development indices and health indices, including the concordance and discordance between them; vulnerabilities experienced by poor communities in developing countries and how they interconnect to impair health; primary health care and development; components in, and derivable health benefits of, national and state development plans and budgets; community development and the roles of community development committees in primary health care; millennium development goals; inter-sectoral collaboration, etc.

Health project management in this course guides the student to the planning, implementation and evaluation stages of a health project. It covers health project planning: formulation, health and environmental impact assessment, situation analysis, problem analysis, setting objectives and targets, ranking priorities, constraint analysis, developing and selecting strategies, specifying resources, programming, writing the project proposal. Health project implementation includes project initiation, specifying and scheduling tasks, clarification of authority, responsibility and relationships, obtaining resources and establishing the directing and control system; resource management, record

keeping, monitoring, supervision, process evaluation. Project termination includes future steps to be taken (e.g. maintenance) balancing accounts and final report writing and submission.

MRH 821: Human Sexuality

This course provides the knowledge base for normal human sexual experience and for dealing with the complex sexuality-related problems in human societies, especially Nigeria. Main themes covered include anatomical and physiological bases of human sexuality; human (foetal, childhood, adolescent, adulthood and later life) sexual development; the historical, contemporary, cultural, social, psychological religious and biological perspectives of human sexuality and sex; psychoanalytic theories of sexual development; sexual orientation; gender identity; sexual, gender and reproductive rights; virginity and sexual debut; human sexual response; the sexual act; sexual dysfunctions; sexual decision making and gender; consensual sex; commercial sex; cultural perspectives of sex; gender-based violence; sexual harassment and sexual violence; defilement and rape; gender violence in conflict situations; the media and sex; sex education including sex counselling.

MRH 822: Adolescent Reproductive Health; School Health

This course targets adolescence as a transition stage when young people experience changes in their sexual development and are vulnerable to harm. It also targets this group in their school setting. Themes covered include defining adolescence; puberty; cognitive and emotional maturation of adolescents; sexual and reproductive health problems of adolescents; sociocultural perspectives of adolescence; peer influence; adolescent pregnancy and delivery; adolescent

marriage; adolescent sexual and reproductive health services (e.g. family planning and post-abortion care), including availability and accessibility; adolescent reproductive health and life skills; history and development of school health globally and in Nigeria; school health programme – environment, services and education; the role of school guidance and counselling services in adolescent sexual and reproductive health.

MRH 823: Gender Equity and Equality; Men's Health

This course addresses the wide range of issues on gender inequity and inequality, including the challenges and opportunities associated with involvement of males in sexual, reproductive and family health. Themes covered include sex and gender; defining gender equity and gender equality; gender roles and stereotypes; men's and women's roles at home and in communities; child sex preference; cultural perspectives of masculinity; response to male dominance – alternative approaches; gender inequality, including male dominance, in diverse settings – education, access to capital, business, politics etc; the girl child; gender mainstreaming in health and development; gender and millennium development goals.

Men's health in this course deals with the major health issues that confront men. It addresses high risk behaviours and roles of men; disorders of the male reproductive system including disorders of the prostate, testis, penis; prevention of ca prostate; erectile dysfunction; male infertility; male family planning methods; andropause; health services targeting men's health.

MRH 824: Legislations, Conventions, Policies and Ethics Related to Reproductive and Family Health

This course covers the regulatory environment in which sexual, reproductive and family health operates and the ethical issues involved in the

subject. Focus is directed at introduction to law, policies and conventions; legal meanings and implications of defilement, rape, induced abortion/foeticide, marriage, divorce; the duty of care; tort applied to sexual, reproductive and family health; sexual, reproductive and family health and human rights; Nigerian health policies related to sexual, reproductive and family health.

This course further examines ethical issues in sexual, reproductive and family health. It addresses foundation theories in ethics; ethical issues and analyses of rape, defilement, induced abortion, sterilisation, infertility, 'impotence', etc; ethical dilemmas (e.g., induced abortion of pregnancy resulting from rape when the victim is anti-abortion); ethics of routine reproductive and family health practice (reference will be made to relevant codes of ethics in Nigeria); concept of standard of care; ethical issues in misattributed paternity and maternity, assisted reproduction, cloning, genetics; using alternative conflict resolution methods to resolve ethical and legal conflicts.

MRH 825: Field Practicum

The practicum is a 12-week supervised practice-based learning in an institution approved by the Department of Community Health as having sufficient sexual, reproductive and family health functions and activities sufficient in standard and magnitude for a master's degree practicum. Alternatively, an institution may be thus approved if its setting permits an innovative and beneficial introduction of sexual, reproductive and family health services and activities by a candidate adjudged to possess sufficient skills, experience, competence and resources to do so. The practicum comes up during the second semester of the first year of the programme for all students. Part-time students may defer their practicum to the second year of the programme. The practicum will be scored by an assigned supervisor, guided by valid log-book records and a satisfactorily written report.

MPH 825: Public Health Nutrition

This course is designed to expose students to the study of food and nutrition at public health level. Themes covered include definition and classification of nutrients; foods security and nutrition security; global food security and climate change; classification of nutrients; recommended dietary allowances; food sources and common dietary patterns; infant feeding practices; breastfeeding; National Breastfeeding Policy and Baby Friendly Hospital Initiative; factors affecting food and nutrition – cultural, educational, economic, medical, political, geographical, etc; assessment of nutritional status of individuals, households and populations; nutrition and infection; organisation of food and nutrition programmes; local and international organisations involved in food and nutrition programmes; roles of different levels of government in nutrition promotion; global food crises – causes and consequences; food and nutrition in disaster situations; macronutrient and micronutrient deficiencies – types, causes, global and local patterns, complications and management; nutritional syndromes of public health importance; food fortification; nutrition and chronic diseases; diets in the aetiology and management of diseases.

MPH 827: Health Economics

Basic concepts in economics; unique features of health and the health industry in the context of economics, e.g. inelasticity of demand; interrelationships between health, healthcare and the economy; economic and social determinants of health; poverty and health; willingness to pay and willingness to enrol for health services; choice of health services; healthcare financing including health insurance with highlights on local, regional and global

trends; National Health Insurance Scheme; financial resource management and cost recovery systems; economic evaluation of health services and programmes including cost-benefit analyses; allocation of resources to health in national, state and local government budgets; economics of health systems development; millennium development goals; health needs assessment; cost analysis in health care; essentials of budgeting; book keeping and accounting; research methods in health economics.

MPH 828: Health Policy, Planning and Management

This course examines the policy process, planning, implementation and evaluation as applicable to health services and the health sector. It covers the historical evolution of health policy in Nigeria; theories and models of public policy; modern concepts and elements of management; levels of management; stages of management – planning, implementation and evaluation; fundamental management functions; the management environment; planning cycle, and the health planning process; health human resource planning and development; implementation – organising, staffing, leading and controlling; human resource management; monitoring and evaluation during and after planning and implementation; indicators in health evaluation; quality management in healthcare (total quality management); SWOT analysis and SWOT matrix; organisation of health services – assessment of needs and resources, inputs, processes, outputs; levels of health care and their roles; referral system; National Health Policy of Nigeria.

MRH 899: Dissertation

Every student is expected to conduct a dissertation in any area of interest in reproductive and family health.

ACADEMIC STAFF LIST*

S/N	Name	Qualifications	Status	Specialisation/ Teaching Areas**
In the department				
1.	Prof O H Okojie***	MBBS (Lagos), FMCPH, FWACP	Professor	Epid, OH, EH, RFH
2.	Prof V A Wagbatsoma***	AIMLT, FIMLT, MSc, PhD (Benin)	Professor	Parasitology, Epid
3.	Prof E C Isah***	MBBS (Benin), MSc, FMCPH, FWACP	Professor	Epid, EH, OH
4.	Prof A N Ofili***	MBBS (Ibadan), FWACP, FMCPH	Professor	OH, EH, Dem, HM, Epid
5.	Dr J C Chiwuzie	MBBS (Ibadan), MPH (Leeds), FWACP	Associate Professor	RFH, Dem, MS
6.	Dr V O Omuemu***	MBBS (Benin), MPH (Benin), FMCPH, MWACP	Associate Professor	Epid, PHN
7.	Dr O A Adeleye	MBBS (Benin), MHPM (Benin), MPH (Benin), MSc (Ibadan), FWACP	Associate Professor	Epid, RMB, Bioethics, RFH, HE
8.	Dr A R Isara	MBBS (Benin), MPH (Benin), FMCPH	Senior Lecturer	EH, OH, RMB, Epid
9.	Dr S U Ighedosa***	MBBS (Benin), DPH (Glasgow) PhD (Glasgow), FWACP	Senior Lecturer	Epid, RFH, EH, HM
10.	Dr I O G Owoeye	MBBS (Maid), MPA (Maid), MPH (Benin), FWACP	Senior Lecturer	Epid, RFH, EH

11.	Dr V Y Adam	MBBS (Lagos), MPH (Benin), FMCPH	Senior Lecturer	Epid, RFH,
Outside the department, but in the School of Medicine				
12.	Prof F E Okonofua	BSc, MBChB (Ife), FWACP, FMCOG, FAS, PhD (Stockholm)	Professor	Obstetrics and Gynaecology, RFH
13.	Prof A O Isah	MBBS (Ibadan), FMCP, FWACP, MD (Newcastle)	Professor	Pharmacoepidemiology
14.	Prof M N Okobia	MBBS (Benin), FMCS, FWACS, MPH PhD (Pittsburgh)	Professor	Breast Surgery, Epidemiology
15.	Prof. A. B. A Ande	BSc, MBChB, FWACS, FICS, MPH	Professor	Obstetrics and Gynaecology, RFH
16.	Prof M I Momoh	MBBS (Benin), FWACS.	Professor	Breast Surgery
17.	Prof J U E Onakewhor	MBBS (Benin), MSc (Calabar), MPH (Benin), FWACS, FICS.	Professor	Obstetrics and Gynaecology, RFH
18.	Prof A O Ogunrin	BSc, MBChB(Ife), MSc (Ibadan), FWACP, FRCP (Lond)	Professor	Bioethics
19.	Prof C Ofovwe***	BSc (Benin), PhD (Limpopo)	Professor	Clinical Psychology
20.	Prof W E Sadoh	MBBS (Benin), MPH (Benin), FWACP	Professor	Child Health
21.	Dr K O Akhigbe	MBBS (Benin), FWACP	Associate Professor	Community Mental Health
22.	Dr O A Akoria	MBBS (Benin), Dip (Israel) MPH (Liverpool), Cert Geriat (New York) FMCP	Associate Professor	Geriatrics
23.	Dr E O Obarisiagbon	MBBS (Benin), FWACS	Lecturer I	Urology

Outside the School of Medicine, but in the University of Benin				
24.	Pror. Monye-Emina Anthony	Ph.D. (Benin), M.Sc. (Benin), B. Sc/Ed (AAU)		Development/Health Economics
25.	Prof O Osemwota	BSc, PGDip, MA	Professor	HM
26.	Prof S M Ogbomwan	BSc, MSc (Nigeria), DIC, PhD (London)	Professor	Biostatistics
27.	Prof O. Odaman	BSc, MSc,PhD	Professor	Demography. Social Statistics
28.	Prof. N I Aniekwu***	LLB (Benin), LLM (Lagos), PGD (Turku), PhD (Lagos)	Professor	Health Law
29.	Dr G N Vincent-Osaghae***	BSc (Ibadan), MSc (Ibadan), PhD (Ibadan)	Senior Lecturer	Medical Sociology
Outside the University of Benin				
30.	Prof M C Asuzu *(Univ of Ibadan)*	MBBS, FMCPH	Professor	Epidemiology
31.	Dr. W. Balami *(FMOH)*	MBBS, FWACS, mni	Director	Maternal and Child Health

*The programme will engage associate lecturers in a collaborative arrangement with University of Aberdeen and Harvard School of Public Health through the Centre of Excellence in Reproductive Health Research and Innovations (CERHI) for the Family and Reproductive Health subspecialty programme).
**Dem, Demography; EH, Environmental Health; Epid, Epidemiology; HE, Health Education; HM, Health Management; MS, Medical Sociology; OH, Occupational Health; PHN, Public Health Nutrition; RFH, Reproductive and Family Health; RMB, Research Methods and Biostatistics.
***Female

DEPARTMENT OF COMMUNITY HEALTH

SCHOOL OF MEDICINE

COLLEGE OF MEDICAL SCIENCES

REVISED CURRICULUM FOR

MASTER OF PUBLIC HEALTH PROGRAMME

UPDATED FEBRUARY, 2018

A. PREAMBLE/HISTORICAL BACKGROUND OF THE PROGRAMME

The Department of Community Health was created at the inception of the College of Medical Sciences in 1975 (1974/75 academic session). The department initially focused on contributing to the undergraduate medical training programme. Postgraduate (residency) training leading to the award of Fellowships soon commenced in the Department of Community Health, University of Benin Teaching Hospital.

The Master of Public Health (MPH) programme commenced in 1999/2000 session. While lecturers have been routinely updating their lectures to reflect new information and technologies, it has become necessary to strengthen, harmonise and document the reviews and to undertake a general revision of the curriculum. This revision also aims at meeting contemporary local needs and international standards.

B. PHILOSOPHY OF THE PROGRAMME

The underlying philosophy of the programme has the following components.

1. Preventable morbidities and mortalities constitute great burdens on societies and families globally, especially in developing countries.
2. Interventions to prevent and control morbidities, mortalities and their risk factors have been ineffective and inefficient largely because they lack the necessary technical contents that integrate a clear understanding of the relevant social-cultural, economic, political and medical dimensions.
3. The programme recognises public health as a multidisciplinary subject with a minimum definition that includes the World Health Organisation's definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

4. Public health interventions not only prevent diseases, injuries and deaths, but also include promotive, curative and rehabilitative services in all their ramifications. These require multisectoral, community-led, equity-based inputs driven by a strong political will at local, state, national and international levels.
5. The programme was developed based on the conviction that an integrated public health approach, led by human resources with high-level technical skills and competence, is a major and desirable contribution to the significant reduction of morbidities and mortalities.

C. AIM OF THE PROGRAMME

The overall aim of the programme is to develop human resources with high-level technical skills and competence to provide and lead integrated preventive and promotive public health interventions

OBJECTIVES

The overall objective of the programme is to develop human resources with high-level technical skills and competence to provide and lead integrated preventive and promotive public health interventions. The specific objectives are as follows.

1. To provide training in public health interventions that incorporates historical, sociocultural, economic, political and conflict-related contexts.
2. To provide training that covers, but not limited to, epidemiology, biostatistics and research methods, health management (including primary health care), environmental health (including human ecology), occupational health, reproductive and family health, health education, public health nutrition, social and rehabilitative medicine, community mental health, international health, bioethics, medical sociology and demography.

3. To build capacity for applying general public health approaches in addressing developmental challenges.
4. To build the capacity of senior health manpower in health facilities, industries and departments and ministries of health and health-related sectors to develop and implement health programmes using management and epidemiological techniques.
5. To incorporate best practices in teaching, learning and research in public health.
6. To support the training of medical doctors and dental surgeons preparing for or undergoing training towards the award of Fellowship qualifications of the National and West African Postgraduate Medical Colleges.
7. To prepare students wishing to pursue doctoral degrees in public health and related fields with the required knowledge and research base.
8. To prepare trainees for various careers in public health.

D. LEARNING OUTCOMES

Upon completion of the MPH training programme, graduates are expected to be able to:

1. Conduct studies and reviews that enable them to know and describe the frequency, distribution, determinants and deterrents of diseases and health-related states and events in human populations.
2. Assess the health care needs of households, families, industries and communities.
3. Conduct studies to identify effective and efficient health interventions.
4. Demonstrate the ability to provide scientific, including epidemiological, evidence as basis for developing and implementing health interventions.
5. Integrate the understanding of life course with multiple determinants of health in developing solutions to health challenges.
6. Manage (plan, implement and evaluate) public health programmes and projects in diverse settings.
7. Provide and contribute to leadership in health teams and institutions.

E. ADMISSION REQUIREMENTS

The following two requirements must be met

a. A first degree in a health-related science, not below 2nd Class.
b. A certificate of completion of or exemption from the National Youth Service Corps. (Foreign students are exempted from this requirement).

Applicants may be required to sit for a qualifying entrance examination conducted by the department.

F. PROGRAMME STRUCTURE AND DURATION

The programme will run in two forms – a 12-month full-time programme and an option of a 24-month part-time programme. The components of the programme are coursework (including a practicum) and dissertation/thesis. The coursework and synopses are described in additional sections below. The proposal for the dissertation/thesis is expected to be completed by the end of the first semester of the programme. The programme components and durations are outlined in Table 1.

Both full-time and part-time students admitted in the same session shall run the coursework simultaneously in the first session (12 months). The full-time students are required to complete their dissertations within the 12-month duration of their programme, along with their coursework. The part-time students are required to complete their dissertations in the second session of their 24-month programme during which they may redo the courses failed in or carried over from the previous session.

Table 1: Structure and duration of the programme

Components	Duration		Credit Units
	Part-time	Full-time	

	Semesters	Months	Semesters	Months	
Coursework and Field Practicum	2	12	2	12	36
Dissertation/thesis	2	12			4
Total	**4**	**24**	**2**	**12**	**40**
Maximum	**8**	**48**	**4**	**24**	**-**

G. CONDITIONS FOR GRADUATION

To graduate, candidates must pass all of the following.

a. A written examination for each course at the end of the respective semesters. A written examination is not required for the practicum which will be scored as described in the appropriate section below.

b. An oral defence for the completed dissertation/thesis, in line with Postgraduate School guidelines.

H. CONDITIONS FOR REPEAT AND WITHDRAWAL

A student who fails a course in any year must re-register for the course in the following year, if eligible.

A **full-time** student who fails to meet any of the following conditions shall be required to withdraw from the programme:

a. A minimum of 10 credits at the end of the first semester of the programme.

b. A minimum of 20 credits at the end of the second semester of the first year of the programme.

c. Completion of the programme in a maximum of 24 months (4 semesters).

A **part-time** student who fails to meet any of the following conditions shall be required to withdraw from the programme:

a. A minimum of 10 credits at the end of the first year of the programme.

b. A minimum of 20 credits at the end of the second year of the programme.

c. Completion of the programme in a maximum of 48 months (8 semesters).

I. EVALUATION AND GRADING PROCEDURE

The evaluation and grading shall be done using the following scale (Table 2). A student must score a minimum of 50% (C grade) to pass a course, including the practicum and dissertation. The course assessment will be based on 30% continuous assessment and 70% examination.

Table 2: Evaluation and Grading

Alphabetical Grade	Percentage	Value interpretation	Points
A	70 – 100	Excellent	5
B	60 – 69	Very Good	4
C	50 – 59	Pass	3
D	0 – 49	Fail	0

J. COURSEWORK

The coursework lasts for two semesters. All courses are core. The details are shown in Tables 3 and 4.

Table 3: First Semester

Course Code	Course Title	L	T	P	CU
	Core courses				
MPH 811	History and Evolution of Public Health; International Health	2	0	0	2
MPH 812	Biostatistics	2	0	0	2
MPH 813	General Epidemiology	2	0	0	2
MPH 814	Applied Epidemiology	2	0	0	2
MPH 815	Primary Health Care	2	0	0	2

MPH 816	Health Promotion, Health Education and Social Mobilisation	2	0	0	2
MPH 817	Quantitative and Qualitative Research Methods; Research Ethics	2	0	0	2
MPH 818	Demography	2	0	0	2
	Elective courses (one required)				
MPH 831	Health Informatics and Computers in Public Health Practice	2	0	0	2
MPH 832	Health and Development; Health Project Management	2	0	0	2
MPH 833	Health Law and Conventions; Public Health Ethics	2	0	0	2
	TOTAL				**18**

Table 4: Second Semester

Course Code	**Course Title**	**L**	**T**	**P**	**CU**
	Core courses				
MPH 821	Environmental Health and Human Ecology; Disaster and Crisis Management	2	0	0	2
MPH 822	Social and Rehabilitative Medicine, Medical Sociology and Community Mental Health	2	0	0	2
MPH 823	Occupational Health	2	0	0	2
MPH 824	Reproductive and Family Health	2	0	0	2
MPH 825	Public Health Nutrition	2	0	0	2
MPH 826	Microbiology; Public Health Laboratory Practice and Services	0	0	2	2
MPH 827	Health Economics	2	0	0	2
MPH 828	Health Policy, Planning and Management	2	0	0	2
MPH 829	Field Practicum	0	0	2	2
MPH 899	Dissertation	0	0	4	4
	TOTAL				**22**

GRAND TOTAL = 40 CREDIT UNITS

COURSE SYNOPSES

MPH 811: History and Evolution of Public Health; International Health

This course examines the historical foundations and trends in public health discipline and practice at global and local (national) levels. Topics covered include the history and evolution of public health in the ages; global review and historical trends in public health activities; the poor law and social security; history of health services in Nigeria – colonial, religious, etc; important names and landmarks in the history of public health in Nigeria; historical and contemporary place of traditional health services in Nigeria.

International health in the course covers the scope and content of international health; objectives, organisation and functions of health services in developed and underdeveloped countries; history, structure and functions of international health organisations (multinational governmental agencies, bilateral governmental agencies and non-governmental organisations) and partnerships between them; international health regulations; role of voluntary organisations; international aspects of the control of communicable disease; port health services – land, water and air.

MPH 812: Biostatistics

This course deals with numeracy in medicine and health care, including vital, descriptive and analytic statistics.

Descriptive statistics covers types of data – quantitative/qualitative, ungrouped/grouped and discrete/continuous; scales of measurement and their implications for statistical methodologies; methods of data presentation – numerical and diagrammatic; measures of central tendency (location) – arithmetic and geometric means, median, mode; measures of dispersion – range, variance, standard deviation, coefficient of variation; measures of partition – quartiles,

deciles and percentiles; types of distribution – uniform, binomial, normal, skewed, log-normal, Poisson; application of normal distribution to the screening of individuals; sources of health data including their strengths and weaknesses.

Analytic statistics covers probability theory and rules and their applications; the standard normal curve – its description, equation and; sampling methods – probability and non-probability methods; statistical inferences; the null and alternative hypotheses; sampling errors; hypothesis testing; statistical errors in tests of significance; parametric and non-parametric tests; level of significance and level of confidence; point estimates – (e.g. p values, odds ratios, relative risks) and interval estimates (e.g. confidence intervals); the standard normal curve; standard error of the mean and standard error of proportion; Z distribution and Z tests for the difference between means and the difference between proportions; t-tests; chi-squared tests for the difference between proportions, the goodness-of-fit test and McNemar test; analysis of variance (ANOVA); Wilcoxon signed rank sum test for paired data; Mann-Whitney U test for unpaired data; Kolmogorov-Smirnov two-sample test; power and sample size estimations; standardisation of rates; risk estimation; correlation; linear and logistic regression analyses; survival analysis, including the construction of a Kaplan-Meier estimate of survival function that describes the 'survival experience' of a cohort of subjects; interpretation of the results of a log-rank test in the context of comparing the 'survival experience' of multiple cohorts; use and abuse of statistical methods in biomedical literature. Students will also be taught the use of statistical packages e.g. SPSS, Stata, Epi-Info in statistical analyses.

MPH 813: General Epidemiology

General epidemiology in this course is aimed at guiding the student into the knowledge of epidemiological principles as a framework for understanding their uses and applications to health-related states, especially the control and

prevention of diseases and injuries. It covers in details the study of the frequency, distribution, determinants and deterrents of diseases and health-related states in human populations and the application of these in disease control and to promote, protect and restore wellbeing. Examples of specific topics covered in this respect include the definition, scope, uses and achievements of epidemiology; measurements in epidemiology (epidemiologic methods) – counts, proportions, percentages, rates, ratios; disease distribution; morbidity and mortality statistics; biologic determinants of disease (epidemiological triad) – agent, transmission and host; other determinants (behavioural, social, economic, political, legal, environmental, occupational, etc); methods of disease control and the establishment of control programmes; investigation and control of epidemics; disease prevention – levels and strategies; disease screening – definition, types and criteria; validity (sensitivity, specificity, positive and negative predictive values) and accuracy of screening tests; surveillance and response (notification); descriptive, analytical and experimental epidemiology; epidemiological study designs – observational and experimental, and their subtypes; potential errors in epidemiological studies – random and systematic errors; confounding; concept of causation in epidemiology – sufficient and necessary causes, single and multiple causes, causal factors, interaction, hierarchy of causes; criteria for establishing causation – causal inference as elaborations of Bradford Hill's criteria; inductive and deductive reasoning; epidemiological transition.

MPH 814: Applied Epidemiology

This course covers the application of the principles of epidemiology in disease control, especially with respect to communicable diseases, and non-communicable diseases and pharmaco-epidemiology. The course covers diseases transmitted through specific routes and modes like oral (ingestion), respiratory (inhalation), skin and mucous membranes (contact and inoculation) and those that

are vector-borne. It also covers communicable diseases in different settings such as nosocomial infections, emerging and re-emerging infectious diseases and epidemics; control of hospital infections; standard precautions; investigation and control of epidemics.

Non-communicable diseases such as sickle cell disease, epilepsy, obesity, hypertension coronary heart disease, conditions, diabetes mellitus, metabolic syndrome, cancers of the breast, cervix, prostate and liver are included in the course. The interconnections between the epidemiology and control of communicable and non-communicable diseases will be emphasized.

Pharmaco-epidemiology in this course covers drug regulations including the national drug policy; revolving drug fund (Bamako initiative); drug safety; essential drugs – concept and programmes; drug utilisation; rational use of drugs; pharmacovigilance; pharmacologistics, national drug policies. Pharmaco-economics includes economic evaluation of pharmaceuticals and drug donation.

National control programmes for communicable and non-communicable diseases are also included in this course.

MPH 815: Primary Health Care

This course examines the history and development of primary health care (PHC), including the Alma Ata Declaration. It covers the history, philosophy, development and scope of PHC; components of PHC – international and national (Nigeria); principles of PHC – equity, appropriate technology, community mobilisation, community participation, intersectoral collaboration, self-reliance, etc. It also addresses the stages and processes involved in establishing and re-establishing a PHC system; PHC health services and health facilities; integrated health services; ward minimum health package; human resources in PHC –

training, roles and responsibilities; management of PHC at all levels; the Medical Officer of Health (PHC Coordinator); Bamako initiative; PHC and the National Health Policy of Nigeria; PHC implementation in Nigeria – strengths, weaknesses, opportunities and threats; referral services.

MPH 816: Health Promotion, Health Education and Social Mobilisation

This course deals with the nature, scope and methods of health promotion including health education. Health promotion addresses the empowerment of the total population to take control of their health and improve it. The course covers health promotion actions/strategies – building healthy public policy, creating supportive environments, strengthening community actions, development of personal skills and reorientation of health services; Ottawa Charter for Health Promotion; National Health Promotion Policy.

Health education in this course covers the definition of health education and the evolution of contemporary terminologies in health education – behaviour change communication, behaviour change intervention, and information, education and communication, etc; individual, group and mass health education methods, including social networks; audiovisual media and technology in health care; counselling – strategies, techniques, micro-skills and stages, and qualities and attributes of a good counsellor; theories and models of communication and behaviour change; the health communication process; knowledge, attitude and practice; management of health education programmes; HIV counselling and testing.

The course also covers group development and group dynamics; community theories; community development; social mobilisation; community mobilisation and community participation; communication strategies for social mobilisation; social marketing strategies; advocacy.

MPH 817: Quantitative and Qualitative Research Methods; Research Ethics

This course is designed to improve the students' ability to carry out research. Topics to be covered include development of proposals; types of research investigations; general and specific purposes of research; the research process; research problem/research question; objectives; review of relevant literature; study design; sample size and power; sampling methods; data management – collection, collation, presentation, analysis; reporting results; discussion/ interpretation of results; conclusion and recommendation; report writing.

This course also covers qualitative research methods, such as focus group discussions; key informant interviews; in-depth interviews; free listing interviews; participant observation (ethnographic) methods; mystery client trials; the Delphi technique; reporting and analysing results in qualitative research; mixed methods.

Research ethics themes covered include definition and classification of ethics; introduction to foundation theories; protection of research participants including case studies e.g. Nazi experiments/Nuremberg Code, Tuskegee studies, Trovan® trial in Nigeria; standard of care and HIV/AIDS research; ethical issues in Ebola Virus Disease epidemic and treatment – 'Zmapp', nano silver, etc; principlism – respect for autonomy, beneficence, non-maleficence, justice; requirements for ethical research; research protocols; research integrity; National Code of Health Research Ethics; international research; international codes of research ethics; ethical review of research proposals.

Proposal writing skills will also be taught.

MPH 818: Demography

Demography in this course introduces students to the structure, size and dynamics in populations as a basic science for understanding public health. Areas covered include censuses; vital statistics; structure, size and changes in

populations (population dynamics – births, deaths, migration) including their measurements and determinants; sources and uses of demographic data; life expectancies; population theory; population pyramids; demographic transition; dependency ratios; population projection; policy implications of demographic profiles; replacement ratios; life tables; population and health; population policies.

MPH 831: Health Informatics and Computers in Public Health Practice

The aim of the course is to guide students to the knowledge of sources and importance of health information; basic data processing; components of data/ information management cycle (collection, collation, analysis, presentation, interpretation, etc); disease surveillance and notification locally, nationally and internationally, including integrated disease surveillance and response in Nigeria; modern technology in health informatics – eHealth, including mHealth; internet sources of health information for service and research.

The course also includes introduction to computers; computer applications in medicine, including public health – diagnostic and therapeutic clinical practice, biostatistics and research; problems and prospects of computers in public health practice; management system for health information in Nigeria and the relevant policies; electronic, including internet, databases for health services management and research; ethical issues in managing databases; the role of computerised decision support systems.

MPH 832: Health and Development; Health Project Management

Health and development in this course aims at guiding students into the knowledge and understanding of health as a component of development at personal, family/household, community, national and global levels; sustainable development; the interdependence between health and development. It addresses the social, infrastructural, political, cultural, and economic determinants of health

and how they link through biological determinants; the vicious cycle of poverty, ignorance and disease; development indices and health indices, including the concordance and discordance between them; vulnerabilities experienced by poor communities in developing countries and how they interconnect to impair health; primary health care and development; components in, and derivable health benefits of, national and state development plans and budgets; community development and the roles of community development committees in primary health care; millennium development goals; inter-sectoral collaboration, etc.

Health project management in this course guides the student to the planning, implementation and evaluation stages of a health project. It covers health project planning: formulation, health and environmental impact assessment, situation analysis, problem analysis, setting objectives and targets, ranking priorities, constraint analysis, developing and selecting strategies, specifying resources, programming, writing the project proposal. Health project implementation includes project initiation, specifying and scheduling tasks, clarification of authority, responsibility and relationships, obtaining resources and establishing the directing and control system; resource management, record keeping, monitoring, supervision, process evaluation. Project termination includes future steps to be taken (e.g. maintenance) balancing accounts and final report writing and submission.

MPH 833: Health Law and Conventions; Public Health Ethics

This course covers the regulatory and ethical environment of health practice and services. For health law, focus is directed at introduction to law and conventions at local and international levels; the duty of care; tort applied to health; patient's rights; medical jurisprudence; judicial powers of tribunals of health professions.

This course further examines ethical issues in health. It addresses foundation theories in ethics (including, virtue ethics, value ethics, deontologism, utilitarianism and principlism); distributive justice and equity in access to health services; "Health for All"; the moral obligation of self and government to provide health care; ethical dilemmas and the resolution of ethical conflicts between individual rights and public health interest, e.g. quarantine, isolation, compulsory screening and compulsory vaccination; ethics of industrial actions by health professions and provisions of codes of ethics of health professions; public health issues in criteria for ethical research; protection of research participants including case studies e.g. Nazi experiments/Nuremberg Code, Tuskegee studies, Trovan® trial in Nigeria; standard of care and HIV/AIDS research; ethical issues in Ebola Virus Disease epidemic and treatment – 'Zmapp', nano silver, etc; ethical issues in genetics and cloning.

MPH 821: Environmental Health and Human Ecology; Disaster and Crisis Management

This course deals with health implications of the interaction between humans and the environment. It covers topics such as composition of the human environment and its contribution to health and disease; components of environmental sanitation; water supply and health; distribution, sources and uses of water; properties of potable water; water standards; test of potability; water treatment at home and for public supply; water-related diseases. Waste management is also covered: categories of refuse; refuse collection and disposal and associated problems; seasonal variation in refuse generation; sewage and wastewater collection and disposal; nature of non-solid wastes; sewage and sullage; collection, disposal and treatment of wastewater; healthcare waste management. Topics in housing include housing and health; housing standards; town/ regional/ country planning, including principles of zoning. Food hygiene

covers definition and scope of public health objective of food hygiene; food poisoning and other food-borne diseases; problems of food hygiene and safety in Nigeria; food premises; abattoirs and their services; meat inspection and hygiene; canned food hygiene and inspection; common affections of local raw food items in Nigeria. Vectors of public health importance and vector control in Nigeria and vector control will also be taught. Air pollution topics include the importance of clean air; source and control of health pollution; health problems from air pollution. Other topics include road traffic crashes; home accidents. Environmental monitoring, public health laws and organisation and management as Medical Officer of Health will also be covered.

Issues addressed in human ecology in this course include the concepts of biotic and abiotic components of the environment; biodiversity; ecosystem – food chain, food web, producers, consumers and decomposers; human exploitation of the environment (e.g. deforestation, mineral exploration, irrigation, dam construction) and the health implications; climate change; flooding and desertification; urbanisation; greenhouse gases and greenhouse effect; ozone layer depletion.

This course also addresses the study of the different types disasters and crises and their management, highlighting the Nigerian scenario; international response to disaster. Topics in disaster management include definition, nature, objectives and public health aspects of disaster management; disaster preparedness, relief, surveillance and evaluation; the roles of agencies.

MPH 822: Social and Rehabilitative Medicine, Medical Sociology and Community Mental Health

Social and rehabilitative medicine addresses social welfare needs and services intended to improve wellbeing and productivity. The topics covered include the development of social welfare services in Nigeria; the underprivileged

in the society; deprivation, especially in childhood; adoption, foster care and applicable laws; disability, handicap, impairment; classification and causes of handicaps; destitution; refugees and displaced persons; juvenile delinquency; street children; care of the handicapped; rehabilitation; problems of the elderly – physical, psychosocial, psychiatric, economic, etc; care of the elderly; domiciliary care of the elderly; old peoples' homes; social welfare services in developing (e.g. Nigeria) and developed countries; orphanages; remand homes; prisons; voluntary agencies; social security and social services.

Medical sociology in this course covers the nature of behavioural sciences; concept of culture and society; definition of health, disease, sickness, illness; family structure and functions; family systems, marriage types and stability; type of societies; social stratification including the concept of class and ethnic subcultures; socialisation; personality formation; symbolic interactionism; structure of social action; structure and function of society; role differentiation; beliefs, values, norms, superstitions, taboos etc; human organisations and systems; community structure; culture and health – beneficial, harmful and neutral practices; religion and health; socio-economic status and health; educational status and health; traditional and modern health systems; recreation, sleep; health behaviour and illness behaviour; doctor-patient relationship as an illustration of healthcare provider-patient relationship; working population, unemployment, retirement; dependency; social security; social deviance; alcoholism; smoking; drug/substance abuse and dependence.

Community mental health in this course covers classification, causes, common presentations, prevention and control of mental disorders in different community settings and at primary health care level; traditional and religious mental health services; mental health of a community; mental stress in disease; crime, violence, drug abuse and mental health; community mental health services; epidemiology, prevention and control of mental illness in Nigeria.

MPH 823: Occupational Health

The course covers the history, scope, approach and methods of occupational health; the work environment; positive and negative interactions between work and health; types, functions and organisation of occupational health services; identification, classification and control of occupational hazards; occupational risk and safety management; hazards of various occupations especially in the following industries – agricultural (crop and animal), brewery, petrochemical, construction, automobile, security/military/paramilitary, health, and education and in executives; specific effects of specific occupational disease agents; occupational lung diseases; industrial toxicology (occupational poisons); occupational cancers; hazards of radiations; industrial medical examination; industrial health notification and prescribed diseases; industrial legislations – labour law, Employee's Compensation Act, Occupational Safety and Health Conventions and Recommendation, etc; national and international regulations and conventions related to occupational health; factors determining compliance with industrial conventions, regulations and legislations; industrial rehabilitation; biological and environmental monitoring, etc.

MPH 824: Reproductive and Family Health

This course addresses themes on reproductive and family health problems and interventions. It deals with family structure and functions; the concept and general principles of family health; an overview of health needs of family members; public health geriatrics; infertility; family planning and contraception; family planning programmes – policy, planning, implementation and evaluation; biological, social, cultural, economic, behavioural, health-system-related and other determinants of maternal and child morbidity and mortality in vertical and integrated terms; human sexuality; male involvement in reproductive health;

organisation of reproductive and family health services at primary, secondary and tertiary levels; history and development of school health globally and in Nigeria; adolescent sexual and reproductive health; school health programme; policies and programmes in maternal health services; traditional practices and health of mothers and children; maternal and child health and millennium development goals; men's health – ca prostate, male infertility.

MPH 825: Public Health Nutrition

This course is designed to expose students to the study of food and nutrition at public health level. Themes covered include definition and classification of nutrients; foods security and nutrition security; global food security and climate change; classification of nutrients; recommended dietary allowances; food sources and common dietary patterns; infant feeding practices; breastfeeding; National Breastfeeding Policy and Baby Friendly Hospital Initiative; factors affecting food and nutrition – cultural, educational, economic, medical, political, geographical, etc; assessment of nutritional status of individuals, households and populations; nutrition and infection; organisation of food and nutrition programmes; local and international organisations involved in food and nutrition programmes; roles of different levels of government in nutrition promotion; global food crises – causes and consequences; food and nutrition in disaster situations; macronutrient and micronutrient deficiencies – types, causes, global and local patterns, complications and management; nutritional syndromes of public health importance; food fortification; nutrition and chronic diseases; diets in the aetiology and management of diseases.

MPH 826: Microbiology; Public Health Laboratory Practice and Services

This course provides the student with skills to initiate and participate in public health laboratory practice and services and to translate the findings to

usable public health decision. Aspects of core interest include medical microbiology, parasitology, arthropods of public health importance and water analysis.

The course also covers museum studies in public health in which students are expected to recognise and discuss the importance of objects and events of public health interest across different subspecialties and teaching areas.

MPH 827: Health Economics

Basic concepts in economics; unique features of health and the health industry in the context of economics, e.g. inelasticity of demand; interrelationships between health, healthcare and the economy; economic and social determinants of health; poverty and health; willingness to pay and willingness to enrol for health services; choice of health services; healthcare financing including health insurance with highlights on local, regional and global trends; National Health Insurance Scheme; financial resource management and cost recovery systems; economic evaluation of health services and programmes including cost-benefit analyses; allocation of resources to health in national, state and local government budgets; economics of health systems development; millennium development goals; health needs assessment; cost analysis in health care; essentials of budgeting; book keeping and accounting; research methods in health economics.

MPH 828: Health Policy, Planning and Management

This course examines policy the policy process, planning, implementation and evaluation as applicable to health services and the health sector. It covers the historical evolution of health policy in Nigeria; theories and models of public policy; modern concepts and elements of management; levels of management; stages of management – planning, implementation and evaluation; fundamental

management functions; the management environment; planning cycle, and the health planning process; health human resource planning and development; implementation – organising, staffing, leading and controlling; human resource management; monitoring and evaluation during and after planning and implementation; indicators in health evaluation; quality management in healthcare (total quality management); SWOT analysis and SWOT matrix; organisation of health services – assessment of needs and resources, inputs, processes, outputs; levels of health care and their roles; referral system; National Health Policy of Nigeria.

MPH 829: Field Practicum

The practicum is a 12-week supervised practice-based learning in an institution approved by the department as having sufficient health programmes and activities sufficient in standard and magnitude for a master's degree practicum. Alternatively, an institution may be thus approved if its setting permits an innovative and beneficial introduction of health programmes and activities by a candidate adjudged to possess sufficient skills, experience, competence and resources to do so. The practicum comes up during the second semester of the first year of the programme for all students. Part-time students may defer their practicum to the second year of the programme. The practicum will be scored by an assigned supervisor, guided by valid log-book records and a satisfactorily written report.

MPH 899: Dissertation

Every student is expected to conduct a dissertation in any area of interest in public health.

ACADEMIC STAFF LIST*

S/N	Name	Qualifications	Status	Specialisation/ Teaching Areas**
In the department				
1.	Prof O H Okojie***	MBBS (Lagos), FMCPH, FWACP	Professor	Epid, OH, EH, RFH
2.	Prof V A Wagbatsoma***	AIMLT, FIMLT, MSc, PhD (Benin)	Professor	Parasitology, Epid
3.	Prof E C Isah***	MBBS (Benin), MSc, FMCPH, FWACP	Professor	Epid, EH, OH
4.	Prof A N Ofili***	MBBS (Ibadan), FWACP, FMCPH	Professor	OH, EH, Dem, HM, Epid
5.	Dr J C Chiwuzie	MBBS (Ibadan), MPH (Leeds), FWACP	Associate Professor	RFH, Dem, MS
6.	Dr V O Omuemu***	MBBS (Benin), MPH (Benin), FMCPH, MWACP	Associate Professor	Epid, PHN
7.	Dr O A Adeleye	MBBS (Benin), MHPM (Benin), MPH (Benin), MSc (Ibadan), FWACP	Associate Professor	Epid, RMB, Bioethics, RFH, HE
8.	Dr A R Isara	MBBS (Benin), MPH (Benin), FMCPH	Senior Lecturer	EH, OH, RMB, Epid
9.	Dr S U Ighedosa***	MBBS (Benin), DPH (Glasgow) PhD (Glasgow), FWACP	Senior Lecturer	Epid, RFH, EH, HM
10.	Dr I O G Owoeye	MBBS (Maid), MPA (Maid), MPH (Benin), FWACP	Senior Lecturer	Epid, RFH, EH
11.	Dr V Y Adam	MBBS (Lagos), MPH (Benin), FMCPH	Senior Lecturer	Epid, RFH,
Outside the department, but in the School of Medicine				
12.	Prof F E Okonofua	BSc, MBChB (Ife), FWACP, FMCOG, FAS, PhD (Stockholm)	Professor	Obstetrics and Gynaecology, RFH

13.	Prof A O Isah	MBBS (Ibadan), FMCP, FWACP, MD (Newcastle)	Professor	Pharmacoepidemiology
14.	Prof M N Okobia	MBBS (Benin), FMCS, FWACS, MPH PhD (Pittsburgh)	Professor	Breast Surgery, Epidemiology
15.	Prof. A. B. A Ande	BSc, MBChB, FWACS, FICS, MPH	Professor	Obstetrics and Gynaecology, RFH
16.	Prof M I Momoh	MBBS (Benin), FWACS.	Professor	Breast Surgery
17.	Prof J U E Onakewhor	MBBS (Benin), MSc (Calabar), MPH (Benin), FWACS, FICS.	Professor	Obstetrics and Gynaecology, RFH
18.	Prof A O Ogunrin	BSc, MBChB(Ife), MSc (Ibadan), FWACP, FRCP (Lond)	Professor	Bioethics
19.	Prof C Ofovwe***	BSc (Benin), PhD (Limpopo)	Professor	Clinical Psychology
20.	Prof W E Sadoh	MBBS (Benin), MPH (Benin), FWACP	Professor	Child Health
21.	Dr K O Akhigbe	MBBS (Benin), FWACP	Associate Professor	Community Mental Health
22.	Dr O A Akoria	MBBS (Benin), Dip (Israel) MPH (Liverpool), Cert Geriat (New York) FMCP	Associate Professor	Geriatrics
23.	Dr E O Obarisiagbon	MBBS (Benin), FWACS	Lecturer I	Urology
Outside the School of Medicine, but in the University of Benin				
24.	Prof. Monye-Emina, Anthony	Ph.D. (Benin), M.Sc. (Benin), B. Sc/Ed (AAU)		Development/Health Economics
25.	Prof O Osemwota	BSc, PGDip, MA	Professor	HM
26.	Prof S M Ogbomwan	BSc, MSc (Nigeria), DIC, PhD (London)	Professor	Biostatistics
27.	Prof O. Odaman	BSc, MSc, PhD	Professor	Demography? Social Statistics

28.	Prof. N I Aniekwu***	LLB (Benin), LLM (Lagos), PGD (Turku), PhD (Lagos)	Professor	Health Law
29.	Dr G N Vincent-Osaghae***	BSc (Ibadan), MSc (Ibadan), PhD (Ibadan)	Senior Lecturer	Medical Sociology
Outside the University of Benin				
30.	Prof M. C. Asuzu *(Univ of Ibadan)*	MBBS, FMCPH	Professor	Epidemiology
31.	Dr. W. Balami *(FMOH)*	MBBS, FWACS, mni	Director	Maternal and Child Health

*The programme will engage associate lecturers in a collaborative arrangement with University of Aberdeen and Harvard School of Public Health through the Centre of Excellence in Reproductive Health Research and Innovations (CERHRI) for the Family and Reproductive Health subspecialty programme).
**Dem, Demography; EH, Environmental Health; Epid, Epidemiology; HE, Health Education; HM, Health Management; MS, Medical Sociology; OH, Occupational Health; PHN, Public Health Nutrition; RFH, Reproductive and Family Health; RMB, Research Methods and Biostatistics.
***Female

DEPARTMENT OF COMMUNITY HEALTH
SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

DOCTOR OF PHILOSOPHY IN PUBLIC HEALTH
(REPRODUCTIVE AND FAMILY HEALTH)

UPDATED FEBRUARY, 2018

PREAMBLE/HISTORICAL BACKGROUND OF THE PROGRAMME

For about three decades, the Department of Community Health has been conducting surveys and interventions in urban and rural communities largely in the current Edo State. Many of these programmes have focused on Reproductive and Family Health at household level and school levels. These programmes are conducted as parts of undergraduate and postgraduate training curricula, including theses, in University of Benin (MBBS; MPH) and University of Benin Teaching Hospital (National and West African Postgraduate Medical Colleges). The programme efforts have largely focussed contributing to reduction of maternal and childhood deaths in Nigeria. The MPH and Fellowship programmes have been the mainstay of the Reproductive and Family Health training at postgraduate level. The increasing human resource gaps in top-level expertise in Public Health have long opened up the need for masters' and doctoral subspecialty programmes in Public Health. This has led to the conception of the Master of Public Health in Reproductive and Family Health and the Doctor of Philosophy in Public Health (Reproductive and Family Health) programmes. The emergence of the Centre of Excellence in Reproductive Health Research and Innovations (CERHRI) provided the trigger to develop these programmes.

PHILOSOPHY OF THE PROGRAMME

The underlying philosophy of the programme has the following components.

1. Preventable morbidities and mortalities related to reproductive and family health continue to constitute great burdens on societies and families in developing countries, especially Nigeria. In particular, maternal and child deaths are extremely high in Nigeria and have been shown to be the most distinguishing features between developed and developing countries.

2. Efforts to correct this challenge have not only been insufficient but have been largely lacking in technical content that integrates the underlying social-cultural, economic, political and medical factors.
3. While maternal and child morbidities and mortalities often receive separate disciplinary attention, they have been widely shown to be closely linked in terms of their underlying social-cultural, economic and political determinants. These determinants and their resulting maternal and child morbidities and mortalities are closely interwoven with and deeply rooted in family life. Reproductive health interventions and training therefore deserve separate and integrated approaches in the context of family life.
4. The programme was developed based on the conviction that an integrated public health approach, led by human resources with high-level technical skills and competence, is a major and desirable contribution to the significant reduction of morbidities and mortalities related to reproductive and family health, especially maternal and child deaths.
5. The programme recognises reproductive and family health as a multidisciplinary subject with a minimum definition that includes those provided by the World Health Organisation (WHO) and the International Conference on Population and Development Programme of Action (ICPD POA). A definition of reproductive and family health should include a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity of the reproductive system and the family; it is a constellation of methods, techniques and services that contribute to reproductive and family wellbeing, which includes sexual health, designed to enhance the quality of life and personal relations.

AIM OF THE PROGRAMME

The overall aim of the programme is to develop human resources with high-level technical skills and competence to provide and lead integrated preventive and promotive public health interventions in reproductive and family health.

OBJECTIVES

The following are the objectives of the programme.

1. To provide training that incorporates the historic, sociocultural, economic, political and conflict-related contexts that impact on the health of women, children and families.
2. To provide training that covers, but not limited to, family planning, infertility, safe motherhood, reproductive tract infections, gender-based violence, genital tract cancers and human sexuality and responsible parenthood.
3. To build capacity for applying general public health approaches in addressing reproductive health challenges.
4. To incorporate best practices in teaching, learning and research in reproductive and family health in line with the objectives and programmes of CERHI.

LEARNING OUTCOMES

Upon completion of the PhD in Public Health (Reproductive and Family Health) training programme, graduates are expected to be able to:

1. Identify the causes and effects of major health problems that occur during pregnancy, infancy, childhood and adolescence.
2. Assess the health care needs of women and children.
3. Integrate the understanding of life course with multiple determinants of health in developing solutions to reproductive and family health challenges.

4. Conduct research related to the health and well-being of families, especially women and children.
5. Demonstrate the ability to provide scientific, including epidemiological, evidence as basis for developing reproductive and family health programmes.
6. Manage (plan, implement and evaluate) sexual, reproductive and family health programmes in diverse settings.
7. Head teams and organisations involved in reproductive and family health programmes.
8. Conduct of research at the highest level for public health professional and academic training in order to function as technical service providers, researchers and lecturers in universities.

ADMISSION REQUIREMENTS

Applicants must satisfy the university's relevant admission requirements and the following in addition.

1. EITHER

a). A master's degree with a dissertation in any of the areas listed below with a minimum average score of 60% in courses taken.

i. Public Health (non-sub-specialised or sub-specialised in Reproductive and Family Health)
ii. A field related to Reproductive and Family Health.

OR

b). Applicants who have no master's degree (e.g. holders of MBBS/BDS or other first degrees with a CGPA of 3.5 or more in a field relevant to Reproductive and Family Health) or whose relevant master's degrees have average scores below 60% will be required to take courses at the master's level in the first year of the programme, excluding the dissertation. To continue with the PhD programme the following year, the

candidates must have scored an average of 60% in the masters' courses taken in the first year.

2. To ascertain the suitability of applicants for this programme, they shall be expected to pass an oral examination conducted by the Department of Community Health.

PROGRAMME DURATION

The programme will be run on full time and part time bases. The full-time option is designed to last for 24 months with allowance made for a maximum of 48 months. The part-time option is to last for 36 months with allowance made for a maximum of 60 months.

CONDITIONS FOR GRADUATION

To graduate, a student must pass

a. all taught courses
b. the practicum.
c. an oral defence of the completed dissertation/thesis, in line with the guidelines of the Postgraduate School.

CONDITIONS FOR WITHDRAWAL

A full time or a part time student who fails to complete the programme in 48 or 60 months respectively will be required to withdraw.

GRADING PROCEDURE

The evaluation and grading shall be done using the following scale (Table 1). A student must score a minimum of 50% (C grade) to pass a course. The

course assessment will be based on 30% continuous assessment and 70% examination.

Table 1: Evaluation and Grading

Alphabetical Grade	Percentage	Value interpretation	Points
A	70 – 100	Excellent	5
B	60 – 69	Very Good	4
C	50 – 59	Pass	3
D	0 – 49	Fail	0

COURSEWORK

All the courses are core. The course training methods include formal lectures and tutorials on key concepts. Emphasis shall be on supervised students' activities such as group demonstrations, academic teaching/tutorials in the department, class discussions, etc. largely focusing on research methods, statistics, review of published articles from reputable journals, mock presentations of proposed and completed dissertation/thesis etc. The taught courses consist of theoretical and practical bodies of knowledge to equip the student for research. They are to last for 1 semester.

A student who fails a course in any year must re-register for the course in the following year. The courses must be passed before the candidate can submit a draft dissertation/thesis proposal to the Departmental Postgraduate Committee.

If the Departmental Postgraduate Committee determines that a student lacks sufficient background in research methods, biostatistics, epidemiology or reproductive and family health, the committee may request the applicant to take the relevant elective courses as electives at master's level.

PPH 911 – 915 are taught courses common to all PhD Public Health programmes. The courses are based on the expectation that candidates are

knowledgeable in them as taught at the MPH level. The course synopses for the PhD programme should, therefore, be seen as continuations of those of the respective MPH course synopses. The courses will be taught in the first semester. All the seminars, practicum and dissertation/thesis must focus on reproductive and family health. Tables 2 and 3 summarise the courses and the years and semesters in which they will be taken in the full time programme. Part time students are to take their taught courses and the examinations on these courses along with full time students, but will have the opportunity to present their seminars, do their practicum and conduct their dissertations within the remaining timeframe of their programme.

Table 2: Outline of Coursework: Year 1

Course Code	Course Title	L	T	P	CU
	First Semester				

PPH 911	Advanced Principles of Epidemiology	3	0	0	3
PPH 912	Advanced Quantitative Research Methods	3	0	0	3
PPH 913	Advanced Qualitative Research Methods	3	0	0	3
PPH 914	Advanced Biostatistics for Health Research	3	0	0	3
PPH 915	Advanced Research Ethics	3	0	0	3
	Second Semester				
PPH 921	Field Practicum	0	0	4	4
PPH 922	Seminar I (Proposal of Dissertation/Thesis)	0	0	3	3
(PPH 999)	*Dissertation/Thesis (commences)*				
	TOTAL				**22**

Table 3: Outline of Coursework: Year 2

Course Code	Course Title	L	T	P	CU
	First Semester				
PPH 931	Seminar II (Field practicum report)	0	0	3	3
PPH 932	Seminar III (A contemporary topical issue)	0	0	3	3
	Second Semester				
PPH 933	Seminar IV (Completed dissertation/thesis)	0	0	3	3
PPH 999	Dissertation/Thesis (Defence)	0	0	6	6
	TOTAL				**15**

GRAND TOTAL = 37 CREDIT UNITS

COURSE SYNOPSES

PPH 911: Advanced Principles of Epidemiology

The purpose of this course is to equip students with doctoral-level skills in epidemiological principles as a framework for understanding their application in

public health. The course builds on the principles of epidemiology taught at the master's level, and students are advised to update themselves in that course.

The overall coverage of this course is the study of the frequency, distribution, determinants and deterrents of diseases and health-related states in human populations and the application of these to promote, protect and restore health.

Themes to be covered include the concept of causation, disease causation, natural history of diseases, measurement of health, disease and deaths, epidemics, study designs, errors, confounding, interaction, effect modification, colinearity, disease surveillance and response, health management information system, etc. Disease prevention, control, elimination, eradication will be treated in details (including screening and screening programmes) and the principles of their applications in communicable and non-communicable diseases and injuries.

While statistical and research methods are taught in other courses, students are expected to be familiar with them in order to gain sufficient conventional knowledge in advanced epidemiology. Thus, students are expected to be familiar with the various methods for different study designs.

PPH 912: Advanced Quantitative Research Methods

This course is structured to enable students to develop advanced quantitative research skills which have relevance to a PhD degree by research. It builds on quantitative research methods taught at the master's level, and students are advised to update themselves in the quantitative research methods module at that level.

It covers a detailed study of the research process. Students are expected to have gained satisfactory knowledge and skills in quantitative research methods at the MPH level. They will learn topical concepts that will enable them to formulate and test relevant research hypotheses, design studies, conduct rigorous data

analysis, interpret results, report and present research findings evaluate existing quantitative research. The topics to be covered will include instrumentation, sampling, reliability, and validity, preparation of a quantitative research plan, observational, experimental and quasi-experimental study designs, and operations research. Skills will be taught on proposal writing for research grants. There is a strong emphasis on the use of statistical tools in data analysis and interpretation using computer packages. Mixed methods in research are highlighted.

PPH 913: Advanced Qualitative Research Methods

This course is meant to enable students design and implement a PhD research with qualitative research content, usually as supportive and explanatory to quantitative research (mixed methods). It builds on qualitative research methods taught at the master's level, and students are advised to update themselves in the qualitative research methods module at that level.

The course covers the meaning of qualitative research, research paradigms, qualitative research design, qualitative inquiry process, qualitative data collection and analysis and qualitative report writing. Methods to be covered include focus group discussion, key informant interview, in-depth interview, mystery client trial, narrative, phenomenology, grounded theory, ethnography and case studies.

PPH 914: Advanced Biostatistics for Health Research

The course introduces the concepts and methods of statistics as applied to diverse problems in public health and medicine. It builds on the biostatistics

course taught at the master's level, and students are advised to update themselves in that course.

This course demonstrates methods of exploring, organizing, and presenting data, and introduces fundamentals of probability distributions and conditional probability, with applications to 2x2 tables; presents the foundations of statistical inference, including concepts of population, sample parameter, and estimate; and estimate; and approaches to inferences using the likelihood function, confidence intervals, and hypothesis tests. It introduces and employs the statistical computing package, STATA, to manipulate data.

The course also presents fundamental concepts in applied probability, exploratory data analysis, and statistical inference, focusing on probability and anaylsis of one and two samples. Topics include discrete and continuous probability models; expectations and variance; central limit theorem; inference, including hypothesis testing and confidence for means, proportions, and counts; maximal likelihood estimate. Sample size determination; non-parametric methods; graphical displays; and data transformation.

Statistical methods for analysing epidemiological studies will be taught with using at least one of STATA, SPSS, and Epi Info. Skills will be taught on screening data for normality, managing missing values, bivariate analysis, exploratory factor analysis, multivariate methods, multivariate analysis of variance (MANOVA), multiple regression analysis (linear and logistic), discriminant analysis and structural equation modelling. Basic methods are expected to have been learnt at lower degree levels, but will be demonstrated. Advanced methods will include logistic regression (conditional and unconditional), Poisson regression for cohort studies, survival analysis and proportionate hazards regression, etc.

PPH 915: Advanced Research Ethics

This course is designed to equip students at doctoral level with the highest level of skills to ensure ethical compliance in the conduct of research in line with local and international standards and requirements. It builds on research ethics taught at the master's level, and students are advised to update themselves in the research ethics module at that level.

Themes to be covered include foundation theories in ethics (virtue ethics, value ethics, deontologism, consequentialism and principlism), differences between clinical and research ethics, exemptions from ethical oversight, informed consent, harm, benefit, risk-benefit calculus, ethical dilemma, standard of care, ethics committees, community relations, international research, clinical trial agreement, material transfer agreement, etc. Features of ethical considerations in experimental research will be emphasised. The National Code of Health Research Ethics will be studied in detail. Requirements for ethical research in selected international codes of ethics, procedures for applying for ethical approval from local and foreign research ethics committees, will be covered. The course will also deal with publication ethics. Research integrity and research misconduct will be covered. Historical and contemporary cases in unethical conduct of research and research misconduct will be critically reviewed. Measures to limit unethical research and research misconduct will be covered.

PPH 921: Field Practicum

The practicum is a 12-week structured and supervised practice-based learning in an institution approved by the department as having health programmes and activities in the student's subspecialty sufficient in standard and magnitude for a PhD practicum. Alternatively, an institution may be thus approved if its setting permits innovative and beneficial introduction of sexual, reproductive and family health functions and activities by a candidate adjudged to possess sufficient skills, experience, competence and resources to do so. The

practicum comes up during the second semester of the first year of the programme. It will be scored by an assigned supervisor, guided by valid log-book records endorsed in the practice industry. The detailed and well-discussed report of the practicum shall be one of the seminars to be presented by the student.

PPH 922, 931, 932, 933: Seminars

Each student shall present a total of 4 doctoral seminars. The first seminar shall be a presentation of the approved dissertation/thesis proposal. The second shall be the report of the practicum. The third shall be on a contemporary and topical issue in reproductive and family health. The fourth shall be the students completed dissertation/thesis. All seminars shall be presented at a meeting of lecturers and postgraduate students of the department and resident doctors undergoing postgraduate training in the department in University of Benin Teaching Hospital. Each seminar shall be scored by qualified teachers in the programme who are present at the seminar. The final score for each seminar shall be the mean of validly awarded scores.

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If satisfied, the DPC requests the student to develop and submit a draft dissertation/thesis proposal to it. The student does so.
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a. The DPC recommends to the School of Postgraduate Studies (through the School of Medicine Board of Studies and the College Academic Board) two supervisors for the dissertation/thesis, one of whom is specified as the lead supervisor and one of whom shall be a professor in a reputable foreign university; and b. the recommendation is accompanied by the student's application for approval of the title of the dissertation/thesis by the postgraduate school.
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With the guidance and approval of the local supervisor, the student seeks ethical clearance for the intended research from the Research Ethics Committee of the College of Medical Sciences, University of Benin (or any other appropriate research ethics committee) in line with the provisions of the National Code of Health Research Ethics and the Helsinki Declaration, and other relevant codes as may be required.

7^{th}–8^{th} month
The student a. presents the proposal to the department as a doctoral seminar; and b. commences field work on the dissertation/thesis, following Research Ethics Committee's approval.

ACADEMIC STAFF LIST*

S/N	Name	Qualifications	Status	Specialisation/ Teaching Areas**
In the department				
1.	Prof O H Okojie***	MBBS (Lagos), FMCPH, FWACP	Professor	Epid, OH, EH, RFH
2.	Prof V A Wagbatsoma***	AIMLT, FIMLT, MSc, PhD (Benin)	Professor	Parasitology, Epid
3.	Prof E C Isah***	MBBS (Benin), MSc, FMCPH, FWACP	Professor	Epid, EH, OH
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5.	Dr J C Chiwuzie	MBBS (Ibadan), MPH (Leeds), FWACP	Associate Professor	RFH, Dem, MS
6.	Dr V O Omuemu***	MBBS (Benin), MPH (Benin), , FMCPH, MWACP	Associate Professor	Epid, PHN
7.	Dr O A Adeleye	MBBS (Benin), MHPM (Benin), MPH (Benin), MSc (Ibadan), FWACP	Associate Professor	Epid, RMB, Bioethics, RFH, HE
8.	Dr A R Isara	MBBS (Benin), MPH (Benin), FMCPH	Senior Lecturer	EH, OH, RMB, Epid
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10.	Dr I O G Owoeye	MBBS (Maid), MPA (Maid), MPH (Benin), FWACP	Senior Lecturer	Epid, RFH, EH
11.	Dr V Y Adam	MBBS (Lagos), MPH (Benin), FMCPH	Senior Lecturer	Epid, RFH,
Outside the department, but in the School of Medicine				
12.	Prof F E	BSc, MBChB (Ife),	Professor	Obstetrics and

	Okonofuaa	FWACP, FMCOG, PhD (Stockholm), FAS		Gynaecology, RFH
13.	Prof V I Iyawe	MBBS (Benin) PhD (Glasgow)	Professor	Respiratory Physiology
14.	Prof A O Isah	MBBS (Ibadan), FMCP, FWACP, MD (Newcastle)	Professor	Pharmacoepidemiology
15.	Prof M N Okobia	MBBS (Benin), FMCS, FWACS, MPH PhD (Pittsburgh).	Professor	Breast Surgery, Epidemiology
16.	Prof. A. B. A Ande	BSc, MBCHB, FWACS, FICS, MPH	Professor	Obstetrics and Gynaecology, RFH
17.	Prof M I Momoh	MBBS, FWACS.	Professor	Breast Surgery
18.	Prof J U E Onakewhor	MBBS (Benin), MSc (Calabar), MPH (Benin), FWACS, FICS.	Professor	Obstetrics and Gynaecology, RFH
19.	Prof A O Ogunrin	BSc, MBChB (Ife), MSc (Ibadan), FWACP, FRCP (Lond)	Professor	Bioethics
20.	Prof C Ofovwe***	BSc (Benin), PhD (Limpopo)	Professor	Clinical Psychology
21.	Prof W E Sadoh	MBBS (Benin), MPH (Benin), FWACP	Professor	Child Health
22.	Dr K O Akhigbe	MBBS (Benin), FWACP	Associate Professor	Community Mental Health
23.	Dr O A Akoria***	MBBS (Benin), Dip (Israel) MPH (Liverpool), Cert Geriat (New York) FMCP	Associate Professor	Geriatrics
24.	Dr E O Obarisiagbon	MBBS (Benin), FWACS	Lecturer I	Urology
Outside the School of Medicine, but in the University of Benin				
25.	Prof. Monye-Emina Anthony	Ph.D. (Benin), M.Sc. (Benin), B. Sc/Ed (AAU)	Professor	Development/Health Economics
26.	Prof O Osemwota	BSc, PGDip, MA	Professor	HM

27.	Prof S M Ogbomwan	BSc, MSc (Nigeria), DIC, PhD (London)	Professor	Biostatistics
28.	Prof O. Odaman	BSc, MSc,PhD	Professor	Demography? Social Statistics
29.	Prof. N I Aniekwu***	LLB (Benin), LLM (Lagos), PGD (Turku), PhD (Lagos)	Professor	Health Law
30.	Dr G N Vincent-Osaghae***	BSc (Ibadan), MSc (Ibadan), PhD (Ibadan)	Senior Lecturer	Medical Sociology
Outside the University of Benin				
31.	Prof M C Asuzu *(Univ of Ibadan)*	MBBS, FMCPH	Professor	Epidemiology
32.	Dr Balami W. *(FMOH)*	MBBS, FWACS, mni	Director	Maternal and Child Health

*The programme will engage associate lecturers in a collaborative arrangement with University of Aberdeen and Harvard School of Public Health, etc, through the Centre of Excellence in Reproductive Health Research and Innovations (CERHRI) for the Family and Reproductive Health subspecialty programme.
**Dem, Demography; EH, Environmental Health; Epid, Epidemiology; HE, Health Education; HM, Health Management; MS, Medical Sociology; OH, Occupational Health; PHN, Public Health Nutrition; RFH, Reproductive and Family Health; RMB, Research Methods and Biostatistics.
***Female

DEPARTMENT OF COMMUNITY HEALTH

SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

DOCTOR OF PHILOSOPHY
(PH.D) IN PUBLIC HEALTH

UPDATED FEBRUARY, 2018

A. PREAMBLE/HISTORICAL BACKGROUND OF THE PROGRAMME

For about three decades, the Department of Community Health has been conducting surveys and interventions in urban and rural communities largely in the current Edo State. Many of these programmes are conducted as parts of undergraduate and postgraduate training curricula, including theses, in University of Benin (MBBS; MPH) and University of Benin Teaching Hospital (National and West African Postgraduate Medical Colleges). The increasing human resource gaps in top-level public health expertise have long opened up the need for doctoral subspecialty programmes in public health. This has led to the conception of the Doctor of Philosophy in Public Health programme with options of sub-specialisation.

B. PHILOSOPHY OF THE PROGRAMME

The underlying philosophy of the programme has the following components.

1. Preventable morbidities and mortalities constitute great burdens on societies and families globally, especially in developing countries.
2. Interventions to prevent and control morbidities, mortalities and their risk factors have been ineffective and inefficient largely because they lack the necessary technical contents that integrate a clear understanding of the relevant social-cultural, economic, political and medical dimensions.
3. The programme recognises public health as a multidisciplinary subject with a minimum definition that includes the World Health Organisation's definition of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."
4. Public health interventions not only prevent diseases, injuries and deaths, but also include promotive, curative and rehabilitative services in all their ramifications. These require multisectoral, community-led, equity-based inputs driven by a strong political will at local, state, national and international levels.

5. The programme was developed based on the conviction that an integrated public health approach, led by human resources with high-level technical skills and competence, is a major and desirable contribution to the significant reduction of morbidities and mortalities.

C. AIM OF THE PROGRAMME

The overall aim of the programme is to develop human resources with high-level technical skills and competence to provide and lead public health interventions.

OBJECTIVES

The overall objective of the programme is to develop human resources with high-level academic and technical skills and competence to provide and lead integrated preventive and promotive public health interventions. The specific objectives are as follows

1. To train human resources in public above the masters degree level.
2. To provide training in public health interventions that incorporates historical, sociocultural, economic, political and conflict-related contexts.
3. To provide training that covers, but not limited to, epidemiology, biostatistics and research methods, health management (including primary health care), environmental health (including human ecology), occupational health, reproductive and family health, health education, public health nutrition, social and rehabilitative medicine, community mental health, international health, bioethics, medical sociology and demography.
5. To build capacity for applying general public health approaches in addressing developmental challenges.
6. To build the capacity of senior health manpower in health facilities, industries and departments and ministries of health and health-related

sectors to develop and implement health programmes using management and epidemiological techniques.

7. To incorporate best practices in teaching, learning and research in public health.
8. To support the training of medical doctors and dental surgeons preparing for or undergoing training towards the award of Fellowship qualifications of the National and West African Postgraduate Medical Colleges.
9. To prepare trainees for various careers in public health.

D. LEARNING OUTCOMES

Upon completion of the PhD in Public Health training programme, graduates are expected to be able to:

1. Conduct studies and reviews that enable them to know and describe the frequency, distribution, determinants and deterrents of diseases and health-related states and events in human populations.
2. Assess the health care needs of households, families, industries and communities.
3. Conduct studies to identify effective and efficient health interventions.
4. Integrate the understanding of multiple determinants of health in developing solutions to health problems.
5. Demonstrate the ability to provide scientific, including epidemiological, evidence as basis for developing and implementing health interventions.
6. Manage (plan, implement and evaluate) public health programmes and projects in diverse settings.
7. Head teams and organisations involved in health projects and programmes.
8. Conduct of research and training in public health at the highest level in order to function as technical service providers, researchers and lecturers in universities.

E. ADMISSION REQUIREMENTS

Applicants must satisfy the university's relevant admission requirements and the following in addition.

F. EITHER

b. A master's degree with a dissertation in any of the following with a minimum average score of 60% in courses taken.

iii. Public health (non-sub-specialised or sub-specialised in the candidate's intended area of interest in the PhD programme)

iv. A subspecialty of public health (e.g. Epidemiology, Environmental Health, Occupational Health, Health Management, Reproductive and Family Health) in which the candidate is interested in obtaining the degree of PhD.

OR

c. Applicants who have no master's degree (e.g. holders of MBBS/BDS or other first degrees with a CGPA of 3.5 or more in a field relevant to the subspecialty of interest) or whose relevant master's degrees have average scores below 60% will be required to take courses at the master's level in the first year of the programme, excluding the dissertation. To continue with the PhD programme the following year, the candidates must have scored an average of 60% in the masters' courses taken in the first year.

G. To ascertain the suitability of applicants for this programme, they shall be expected to pass an oral examination conducted by the Department of Community Health.

H. PROGRAMME DURATION

The programme will be run on full time and part time bases. The full-time option is designed to last for 24 months with allowance made for a maximum of 48 months. The part-time option is to last for 36 months with allowance made for a maximum of 60 months.

I. CONDITIONS FOR GRADUATION

To graduate, a student must pass

i. all taught courses
ii. the practicum.
iii. an oral defence of the completed dissertation/thesis, in line with the guidelines of the Postgraduate School.

J. CONDITIONS FOR WITHDRAWAL

A full time or a part time student who fails to complete the programme in 48 or 60 months respectively will be required to withdraw.

K. SUBSPECIALTIES/ SUBJECT AREAS FOR THE PHD PROGRAMME

Candidates applying for the PhD Public Health programme are required to indicate the subspecialty or subject area of Public Health in which they wish to focus their research work in their application. The following areas are currently available, but the list may vary from time to time as will be advertised.

a. Epidemiology
b. Biostatistics and Research Methods
c. Reproductive and Family Health (the curriculum is extracted for the Centre of Excellence in Reproductive Health Research and Innovations)
d. Occupational Health
e. Environmental Health

L. GRADING PROCEDURE

The evaluation and grading shall be done using the following scale (Table 1). A student must score a minimum of 50% (C grade) to pass a course. The course assessment will be based on 30% continuous assessment and 70% examination.

Table 1: Evaluation and Grading

Alphabetical Grade	Percentage	Value interpretation	Points
A	70 – 100	Excellent	5
B	60 – 69	Very Good	4
C	50 – 59	Pass	3
D	0 – 49	Fail	0

M. COURSE WORK

All the courses are core. The course training methods include formal lectures and tutorials on key concepts. Emphasis shall be on supervised students' activities such as group demonstrations, academic teaching/tutorials in the department, class discussions, etc. largely focusing on research methods, statistics, review of published articles from reputable journals, mock presentations of proposed and completed dissertation/thesis etc. The taught courses consist of theoretical and practical bodies of knowledge to equip the student for research. They are to last for 1 semester.

A student who fails a course in any year must re-register for the course in the following year. All taught courses must be passed before the candidate can submit a draft dissertation/thesis proposal to the Departmental Postgraduate Committee.

If the Departmental Postgraduate Committee determines that a student lacks sufficient background in research methods, research ethics, biostatistics, epidemiology or the candidate's subspecialty of interest, the committee may request the student to take the relevant courses as electives at master's level.

PPH 911 – 915 are taught courses common to all PhD Public Health programmes. The courses are based on the expectation that candidates are knowledgeable in them as taught at the MPH level. The course synopses for the

PhD programme should, therefore, be seen as continuations of those of the respective MPH course synopses. The courses will be taught in the first semester. All the seminars, practicum and dissertation/thesis must focus on the candidate's subspecialty of interest. Tables 2 and 3 summarise the courses and the years and semesters in which they will be taken in the full time programme. Part time students are to take their taught courses and the examinations on these courses along with full time students, but will have the opportunity to present their seminars, do their practicum and conduct their dissertations within the remaining timeframe of their programme.

Table 2: Outline of Coursework: Year 1

Course Code	Course Title	L	T	P	CU
	First Semester				
PPH 911	Advanced Principles of Epidemiology	3	0	0	3
PPH 912	Advanced Quantitative Research Methods	3	0	0	3
PPH 913	Advanced Qualitative Research Methods	3	0	0	3
PPH 914	Advanced Biostatistics for Health Research	3	0	0	3
PPH 915	Advanced Research Ethics	3	0	0	3
	Second Semester				
PPH 921	Field Practicum	0	0	4	4
PPH 922	Seminar I (Proposal of Dissertation/Thesis)	0	0	3	3
(PPH 999)	*Dissertation/Thesis (commences)*				

	TOTAL				**22**

Table 3: Outline of Coursework: Year 2

Course Code	Course Title	L	T	P	CU
	First Semester				
PPH 931	Seminar II (Field practicum report)	0	0	3	3
PPH 932	Seminar III (A contemporary topical issue)	0	0	3	3
	Second Semester				
PPH 933	Seminar IV (Completed thesis/dissertation)	0	0	3	3
PPH 999	Dissertation/Thesis (Defence)	0	0	6	6
	TOTAL				**15**

GRAND TOTAL = 37 CREDIT UNITS

COURSE SYNOPSES

PPH 911: Advanced Principles of Epidemiology

The purpose of this course is to equip students with doctoral-level skills in epidemiological principles as a framework for understanding their application in public health. The course builds on the principles of epidemiology taught at the master's level, and students are advised to update themselves in that course.

The overall coverage of this course is the study of the frequency, distribution, determinants and deterrents of diseases and health-related states in human populations and the application of these to promote, protect and restore health.

Themes to be covered include the concept of causation, disease causation, natural history of diseases, measurement of health, disease and deaths, epidemics, study designs, errors, confounding, interaction, effect modification, colinearity,

disease surveillance and response, health management information system, etc. Disease prevention, control, elimination, eradication will be treated in details (including screening and screening programmes) and the principles of their applications in communicable and non-communicable diseases and injuries.

While statistical and research methods are taught in other courses, students are expected to be familiar with them in order to gain sufficient conventional knowledge in advanced epidemiology. Thus, students are expected to be familiar with the various methods for different study designs.

PPH 912: Advanced Quantitative Research Methods

This course is structured to enable students to develop advanced quantitative research skills which have relevance to a PhD degree by research. It builds on quantitative research methods taught at the master's level, and students are advised to update themselves in the quantitative research methods module at that level.

It covers a detailed study of the research process. Students are expected to have gained satisfactory knowledge and skills in quantitative research methods at the MPH level. They will learn topical concepts that will enable them to formulate and test relevant research hypotheses, design studies, conduct rigorous data analysis, interpret results, report and present research findings evaluate existing quantitative research. The topics to be covered will include instrumentation, sampling, reliability, and validity, preparation of a quantitative research plan, observational, experimental and quasi-experimental study designs, and operations research. Skills will be taught on proposal writing for research grants. There is a strong emphasis on the use of statistical tools in data analysis and interpretation using computer packages. Mixed methods in research are highlighted.

PPH 913: Advanced Qualitative Research Methods

This course is meant to enable students design and implement a PhD research with qualitative research content, usually as supportive and explanatory to quantitative research (mixed methods). It builds on qualitative research methods taught at the master's level, and students are advised to update themselves in the qualitative research methods module at that level.

The course covers the meaning of qualitative research, research paradigms, qualitative research design, qualitative inquiry process, qualitative data collection and analysis and qualitative report writing. Methods to be covered include focus group discussion, key informant interview, in-depth interview, mystery client trial, narrative, phenomenology, grounded theory, ethnography and case studies.

PPH 914: Advanced Biostatistics for Health Research

The course introduces the concepts and methods of statistics as applied to diverse problems in public health and medicine. It builds on the biostatistics course taught at the master's level, and students are advised to update themselves in that course.

This course demonstrates methods of exploring, organizing, and presenting data, and introduces fundamentals of probability distributions and conditional probability, with applications to 2x2 tables; presents the foundations of statistical inference, including concepts of population, sample parameter, and estimate; and estimate; and approaches to inferences using the likelihood function, confidence intervals, and hypothesis tests. It introduces and employs the statistical computing package, STATA, to manipulate data.

The course also presents fundamental concepts in applied probability, exploratory data analysis, and statistical inference, focusing on probability and anaylsis of one and two samples. Topics include discrete and continuous probability models; expectations and variance; central limit theorem; inference, including hypothesis testing and confidence for means, proportions, and counts; maximal likelihood estimate. Sample size determination; non-parametric methods; graphical displays; and data transformation.

Statistical methods for analysing epidemiological studies will be taught with using at least one of STATA, SPSS, and Epi Info. Skills will be taught on screening data for normality, managing missing values, bivariate analysis, exploratory factor analysis, multivariate methods, multivariate analysis of variance (MANOVA), multiple regression analysis (linear and logistic), discriminant analysis and structural equation modelling. Basic methods are expected to have been learnt at lower degree levels, but will be demonstrated. Advanced methods will include logistic regression (conditional and unconditional), Poisson regression for cohort studies, survival analysis and proportionate hazards regression, etc.

PPH 915: Advanced Research Ethics

This course is designed to equip students at doctoral level with the highest level of skills to ensure ethical compliance in the conduct of research in line with local and international standards and requirements. It builds on research ethics taught at the master's level, and students are advised to update themselves in the research ethics module at that level.

Themes to be covered include foundation theories in ethics (virtue ethics, value ethics, deontologism, consequentialism and principlism), differences between clinical and research ethics, exemptions from ethical oversight, informed consent, harm, benefit, risk-benefit calculus, ethical dilemma, standard of care,

ethics committees, community relations, international research, clinical trial agreement, material transfer agreement, etc. Features of ethical considerations in experimental research will be emphasised. The National Code of Health Research Ethics will be studied in detail. Requirements for ethical research in selected international codes of ethics, procedures for applying for ethical approval from local and foreign research ethics committees, will be covered. The course will also deal with publication ethics. Research integrity and research misconduct will be covered. Historical and contemporary cases in unethical conduct of research and research misconduct will be critically reviewed. Measures to limit unethical research and research misconduct will be covered.

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topical issue in the student's subspecialty or subject area. The fourth shall be the students completed dissertation/thesis. All seminars shall be presented at a meeting of lecturers and postgraduate students of the department and resident doctors undergoing postgraduate training in the department in University of Benin Teaching Hospital. Each seminar shall be scored by qualified teachers in the programme who are present at the seminar. The final score for each seminar shall be the mean of validly awarded scores.

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5th month
Upon submission, the DPC sends the draft proposal for review by three assessors, two of whom shall be the intended supervisors – one local (in the University of Benin) and another from a reputable foreign university. At least two assessors submit their comments.
If no assessor recommends discontinuation of the research process, consent to nominate as supervisor is obtained from the intended supervisors.
a. The DPC recommends to the School of Postgraduate Studies (through the School of Medicine Board of Studies and the College Academic Board) two supervisors for the dissertation/thesis, one of whom is specified as the lead supervisor and one of whom shall be a professor in a reputable foreign university; and b. the recommendation is accompanied by the student's application for approval of the title of the dissertation/thesis by the postgraduate school.
6th month
The student makes changes in the proposal as may be required.
With the guidance and approval of the local supervisor, the student seeks ethical clearance for the intended research from the Research Ethics Committee of the College of Medical Sciences, University of Benin (or any other appropriate research ethics committee) in line with the provisions of the National Code of Health Research Ethics and the Helsinki Declaration, and other relevant codes as may be required.

7th–8th month
The student c. presents the proposal to the department as a doctoral seminar; and d. commences field work on the dissertation/thesis, following Research Ethics Committee's approval.

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3.	Prof E C Isah***	MBBS (Benin), MSc, FMCPH, FWACP	Professor	Epid, EH, OH
4.	Prof A N Ofili***	MBBS (Ibadan), FWACP, FMCPH	Professor	OH, EH, Dem, HM, Epid
5.	Dr J C Chiwuzie	MBBS (Ibadan), MPH (Leeds), FWACP	Associate Professor	RFH, Dem, MS
6.	Dr V O Omuemu***	MBBS (Benin), MPH (Benin), , FMCPH, MWACP	Associate Professor	Epid, PHN
7.	Dr O A Adeleye	MBBS (Benin), MHPM (Benin), MPH (Benin), MSc (Ibadan), FWACP	Associate Professor	Epid, RMB, Bioethics, RFH, HE
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18.	Prof J U E Onakewhor	MBBS (Benin), MSc (Calabar), MPH (Benin), FWACS, FICS.	Professor	Obstetrics and Gynaecology, RFH
19.	Prof A O Ogunrin	BSc, MBChB (Ife), MSc (Ibadan), FWACP, FRCP (Lond)	Professor	Bioethics
20.	Prof C Ofovwe***	BSc (Benin), PhD (Limpopo)	Professor	Clinical Psychology
21.	Prof W E Sadoh	MBBS (Benin), MPH (Benin), FWACP	Professor	Child Health
22.	Dr K O Akhigbe	MBBS (Benin), FWACP	Associate Professor	Community Mental Health
23.	Dr O A Akoria***	MBBS (Benin), Dip (Israel) MPH (Liverpool), Cert Geriat (New York) FMCP	Associate Professor	Geriatrics
24.	Dr E O Obarisiagbon	MBBS (Benin), FWACS	Lecturer I	Urology
Outside the School of Medicine, but in the University of Benin				
25.	Prof. Monye-	Ph.D. (Benin), M.Sc.	Professo	Development/Heal

	Emina	(Benin), B. Sc/Ed (AAU)	r	th Economics
26.	Prof O Osemwota	BSc, PGDip, MA	Professo r	HM
27.	Prof S M Ogbomwan	BSc, MSc (Nigeria), DIC, PhD (London)	Professo r	Biostatistics
28.	Prof O. Odaman	BSc, MSc, PhD	Professo r	Demography ? Social Statistics
29.	Prof. N I Aniekwu***	LLB (Benin), LLM (Lagos), PGD (Turku), PhD (Lagos)	Professo r	Health Law
30.	Dr G N Vincent-Osaghae***	BSc (Ibadan), MSc (Ibadan), PhD (Ibadan)	Senior Lecturer	MS
Outside the University of Benin				
31.	Prof M C Asuzu *(Univ of Ibadan)*	MBBS, FMCPH	Profess or	Epidemiology
32.	Dr Balami W. (FMOH)	MBBS, FWACS, mni	Director	Maternal and Child Health

*The programme will engage associate lecturers in a collaborative arrangement with University of Aberdeen and Harvard School of Public Health, etc, through the Centre of Excellence in Reproductive Health Research and Innovations (CERHRI) for the Family and Reproductive Health subspecialty programme.
**Dem, Demography; EH, Environmental Health; Epid, Epidemiology; HE, Health Education; HM, Health Management; MS, Medical Sociology; OH, Occupational Health; PHN, Public Health Nutrition; RFH, Reproductive and Family Health; RMB, Research Methods and Biostatistics.
***Female

DEPARTMENT OF ECONOMICS AND STATISTICS

FACULTY OF SOCIAL SCIENCES

POST-GRADUATE CURRICULUM IN HEALTH ECONOMICS (MASTERS PROGRAMME):

MASTERS IN HEALTH ECONOMICS REPRODUCTIVE AND CHILD HEALTH (MRHE)]

SUPPORTED BY THE CENTRE OF EXCELLENCE IN REPRODUCTIVE HEALTH INNOVATION (CERHI)

FEBRUARY, 2018

Objectives

The overall objective of the programme is to develop a pool of sophisticated human resources that is capable of applying economic concepts and

techniques to reproductive and child health. This is to be done by acquainting the students with the skills of researching into reproductive and child health issues that can generate optimal policies which could be employed to mitigate the escalating high maternal and under five infant mortality rates. Specifically it is to:

1. Provide training that incorporates basic tools of economics principles in explaining the mechanisms of operation in health consumption by Nigerian.
2. Provide training in econometric methodologies in studying the impacts of certain variables in health inputs on the variable outcomes in health.
3. Provide training in health data collection, collation and description of same as well provide economic explanation of the developments in the reproductive and family health sub sector of health.

Expected Outcomes

At the end of the course, a graduate of MRHE in reproductive and family health should be able to:

1. Demonstrate knowledge, understanding and application of a range of established economic techniques of enquiry in re productive and family health economics
2. Analyze health policy issues particularly within the context of reproductive and family health in Nigeria and Africa at large.
3. Undertake advance courses in reproductive and family health economics.
4. Generate well-sourced data on aspects of reproduction and family health and:

(I) Process such data into outcomes through well structure statistical techniques

(II) With the aid of statistical and econometric instrument collate and interpret such data

(III) Provide inferential deductions from such interpretation and make relevant policy recommendations based on such deductions.

Admission Requirements

i. A first degree in economics with a minimum of second class-lower division

ii. A post-graduate diploma in economic related courses.

iii. A certificate of completion or exemption from National Youth Service Corps. (Foreign students are exempted from 3 above)

Methodology

The course shall apply a combination of lecture, seminar, case studies and practical exercises in its teaching. Students' participation is a very key component of the course (i.e. student centered active learning). It is expected that students will be responsible for integrating assigned readings into class discussions. Assignment, case studies, discussions and practicals will provide an opportunity for students to apply what they have learned. It is expected that the instructors will provide empirical examples to illustrate concepts. Continuous assessment and final examination has 40% and 60% respectively of the total course score.

The continuous assessment grade shall be broken into the following sub-division

i.	Active class participation	10%
ii.	Take home assignment	15%
iii.	Compulsory practical case study	15%

COURSE SYNOPSES

First Semester

MRHE 811: Introduction to Health Economics

This course introduces the students to health economics. It is meant to expose the student to basic and important economic concepts and their applications to reproductive child health among the topics to be covered are:

- The scope of health and health care
- The concept of health economics
- Health, public goods and health economics
- The relevance of health economics
- Economics of health and health care
- Health care as economic community
- The nature of health care need versus demand

MRHE 812 Demands and Supply of Health

This is meant to expose students to the principles of demand and supply as key concept of economic transaction and production. Included in this discourse are the motivating works of Grossman and other relevant empirical studies. The topics therefore include:

- Determinants of demand for health care (medicine, education, lifestyle, other behavioral aspects, the role of time, insurance, nature of sickness and quality)
- The Grossman model
- Empirical measurement-RAND-health insurance experiments and survey (HIES)
- Supply and supplies of Health care
- Production functions of health and health care
- Cost studies including hospital cost analysis
- Producers' and Consumers' surlpus

MRHE 813 Markets and Market Failure and Health Care

Market activities are ideally guided by the forces of demand and supply which interact to fix the efficient price and optimum output through effective competitiveness. The structure of the economy and nature of commodity traded on, sometimes defy this mechanism. Health care market in developing countries such as found in Africa and Nigeria, especially, is one of such phenomenon. This course is thus meant to expose these cases. Topics therefore include:

- Markets
- Physicians (Suppliers-induced demand)
- Hospitals (Newhouse model)
- Pharmaceutical industries
- Market failures and government intervention
- Asymmetric information and agency relations

MRHE 814 Health Insurance

Resources for delivery of services and sustenance of life do not have a continuous life without break. Unforeseen contingencies abound everywhere in the course of life of individuals yet, for sustained productivity, there is need for continuous health. Thus health insurance services are needed to fill this crucial gap in the trend of productive life of individuals. This course is therefore meant to expose the student to insurance industry and the dynamics of the relevant principles involved in their mechanism of operation. Topics involve are:

- The demand for health insurance
- The supply of health insurance
- Moral hazard and adverse selection
- Managed care

MRHE 815 Basic Principles of Epidemiology

Epidemics have serious impact on the productivity rate in any economy, the cost of managing themhas ripple effects. It ranges through unemployment, low productivity, redundancy and dependency. It is therefore important that studies be conducted on the rate of prevalence so as to possess a good measure of off-hand information of their existence for effective policy making, towards the prevention and control of such epidemics.

Thus topics to be taught include

- Economic epidemiology rate
- Prevention (education nutrition and immunization)
- Economics of common disease in developing countries.

Second Semester

MRHE 821 Health and Development.

Productivity is the core of growth and development. Meanwhile the source of productivity is the individual. Hence a regular and comprehensive assessment of the dimension of health profile as well as size of expenditure on health by government and hence their effects on growth is necessary for proper policy direction.

Topics to be taught there include:

- Measures of health and development
- Disease profile of rich and poor countries
- Health, health expenditures and growth
- Linkage between poverty and health
- Social, political, religious and regional dimension of health.

MRHE 822 Health System and Financing

There is need for a sound understanding of the development of proper health system or structure in the economy. This will enhance a holistic approach to healthy policy direction in the health sector. A well-directed finance process is also another very crucial aspect to be looked into in this area. Hence, a thorough exposure of students to a course in health system and finance is important.

Topics to be taught here include:

- Objectives of health system
- Organization and structure
- Public sources of Health finance (including social insurance HMOs, NGOs, donor funding etc)
- National health accounts.

MRHE 823 Health Policy and Reforms

To achieve the crucial development goals, sound policy engineering is needed. This therefore brings to the fore the development and regular reviews of such policies so as to ensure their relevance to the health needs of the economy and ensure their target impact with optimum speed, especially as it affects reproductive and family health.

Thus the student shall be exposed to the following topics

- Health policy, health policy analysis and reproductive and family health analysis
- Health sector reform (HSR): concept, objectives implementation and impact
- Sector wide approaches (SWAP) to HSR and reproductive and family reforms

MRHE 824 Introduction to Economic Evaluation of Health Intervention

This course emphasizes the need for the evaluation of health intervention. The monitoring of the successes of such intervention, assess their cost and benefits and to know areas of adjustment and continuity. This is healthy for effective policy development and direction. Topics to be treated shall include:

- Methods of economic evaluation of health care intervention
  - Cost analysis
  - Cost effectiveness Analysis
  - Cost utility analysis
  - Cost benefit analysis
- Applications of economic evaluation of health care interventions
- Impact analysis of HIV/AIDS, Maleria and TB

MRHE 825 Basic Econometrics

This course emphasizes the exposure of students to analytical tools for effective measurement of impacts of interventions and desired outcomes. It therefore focuses on econometric modeling of such phenomena. This is necessary for effective family and reproductive health policy engineering. Topics to be taught shall include:

- Econometric methods
- Types of data
- Econometric modeling and model types
- Quantitative response models
- Kernel regressions
- Programme evaluation.

MRHE 826 Statistics

This emphasizes the need for data development, accumulation, processing evaluation and interpretation. This will also enhance sound health policy development. Hence students shall be exposed to topics such as:

- Basic descriptive statistics
- Probability theorems
- Hypothesis testing
- Estimation theorem
- Non-parametric data analysis
- Index number development for growth analysis in health outcomes.

MRHE 827

The realization of the training is the students' ability of the student to apply all taught courses in empiricism. Thus the student shall choose any area of interest in reproductive and family health and carry out a thoughtful empirical research which shall culminate into a thesis. Such thesis shall be defended before a panel of examiners which shall include an external examiner in the university's school of post graduate studies for final assessment.

ACADEMIC STAFF LIST

S/N	Name	Qualification	Status
1.	Monye-Emina, Anthony I.	Ph.D. (Benin), M.Sc. (Benin), B. Sc/Ed (AAU)	Professor and Head of Department
2.	Iyoha. Milton A.	Ph.D. (Yale), M.A. (Yale) B. A. (Oberlin)	Professor
3.	Obadan, Mike I.	Ph. D. (Ibadan), B.Sc. (Ibadan)	Professor
4.	Okojie, Christiana E. E. (Mrs.)	Ph. D. (Ibadan), M.A. (Leeds), B.Sc. (Ibadan)	Professor
5.	Edo, Samson. E.	Ph. D. (Benin), M. SC. (Benin), B. Sc. (Ibadan)	Professor
6.	Udegbunam, Raphael I.	Ph. D. (Benin), M.Sc. (Benin) B.Sc. (Benin)	Professor
7.	Anyiwe, Mercy A. (Mrs.)	Ph. D. (AAU), M. Sc. (Benin) B.Sc. (Benin)	Professor
8.	Oaikhenan, Hassan E.	Ph. D. (Benin), M.Sc. (Benin) B.Sc. (Benin)	Professor
9.	Oriakhi, Dickson E.	Ph. D. (Benin), M.Sc. (Benin) B. Sc. (Benin)	Professor
10.	Izilein, Elizabeth I. (Mrs.)	Ph. D. (Benin), M. Sc. (Benin), PGDE (Benin), B. Sc. (Benin)	Associate Professor/Reader
11.	Oyefusi, Sulaimon, A.	Ph. D. (Benin), M. Sc. (Benin) B. Sc. (Benin)	Senior Lecturer
12.	Okoduwa, Pascal. A.	M. Sc. (East Texas), B.Sc. (Dallas)	Senior Lecturer

13.	Ighodaro, Clement A. U.	Ph. D (Benin), M. Sc. (Benin) B. Sc. (Benin)	Senior Lecturer
14.	Sede, Peter I.	Ph. D. (Benin), M. Sc. (Benin) B. Ed. (Benin)	Senior Lecturer
15.	Mogbolu, Favoured (Mrs.)	Ph. D. (Benin), M. Sc. (Benin) B. Sc. (Benin)	Lecturer 1
16.	Igbinedion, Osaretin S.	M. Sc. (Benin), B. Sc. (Benin)	Lecturer 1

ACADEMIC STAFF LIST CONTINUED

S/No	Name	Qualification	Status
17.	Okweshine, James W.	Ph. D. (Benin), M. Sc. (Benin) B. Sc. (Benin)	Lecturer 2
18.	Ogbeide, Frank I.	Ph. D. (Benin), M. Sc. (Benin) B. Sc. (Benin)	Lecturer 2
19.	Sowemimo, I. E. (Mrs.)	M.Sc. (Manchester), B. Sc. (Benin)	Lecturer 2
20.	Abusomwan, Success P.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
21.	Gbadebo, D. A.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
22.	Arodoye, Nosakhare L.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
23.	Osemwegie, Presly K.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
24.	Odjeba, O. P. (Mrs.)	M. Sc. (BIU), B. Sc. (Benin)	Assistant Lecturer
25.	Omo-Ikirodah, B. O. (Mrs.)	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer

26.	Mohammed, N.	M. Sc. (UNN), B. Sc. (Sokoto)	Assistant Lecturer
27.	Onwukeme, O. O.	M. Sc. (Ibadan), B.Sc. (Benin)	Assistant Lecturer
28.	Isuwa, D. F.	B. Sc. (ADSU)	Graduate Assistant
29.	Emediegwu, L. E.	B. Sc. (Benin)	Graduate Assistant
30.	Okoh, E. N.	B. Sc. (Benin)	Graduate Assistant

DEPARTMENT OF ECONOMICS AND STATISTICS

FACULTY OF SOCIAL SCIENCES

POST-GRADUATE CURRICULUM IN HEALTH ECONOMICS
(Ph.D PROGRAMME)

SUPPORTED BY
THE CENTRE OF EXCELLENCE IN REPRODUCTIVE HEALTH INNOVATION (CERHI)

FEBRUARY, 2018

PH.D IN HEALTH ECONOMICS (REPRODUCTIVE AND CHILD HEALTH)

Introduction

This course is designed for those who wish to specialize in health economies at Ph.D level. It is based on what has been covered at the master's classes. For each topic examples and application to African and other developing countries shall be provided.

Course Goal

To advance students' knowledge and appreciation of reproductive and family health as a branch of applied economics and to sharpen the students prowess in the application of the required skills in research techniques with a view to attain the healthy policy.

Course Objective

Upon completion of this programme the student should be able to:

1. Apply economic principles and techniques to carrying out analysis of health issues in policy issue, reproductive and family health.
2. Undertake independent research in health economics, especially in reproductive and family health policy.
3. Communicate research results to stake holder
4. Function professionally in different health care system
5. Generate and/or supervise data generation for further research and studies in the area of health economics generally.

Admission Requirement

Student should have passed all the courses held at the masters of health Economies (MRHE) level. Alternatively such a student should have obtained a masters degree in economics with a GPA of, at least 60%

Course Structure

The course consists of two parts, part one covers individuals, state and markets in health and health care. Part two covers policy and planning issues in health, reproductive and family health and development each part consists of 56hours of teaching seminars and tutorials.

Course Assessment

The final course mark in each part has the following components:

Class attendance (by students)	10marks
Class tests	15marks
Seminar presentation	25marks
Final examination	50marks
Total	**100marks**

The final examination is a 3-hour written paper for each part. The final mark for the course shall be average of the two parts.

Teaching Methodology

The courses shall be taught through lecture methods, study and discussions of published articles and presentation of seminars. For the sake of acquisition of analytical strength by the students health econometrics shall be included among the courses.

COURSE SYNOPSES

First Semester

RHE 911 Individuals in Health Care Introduction

This course is meant to expose the student to the dynamics of economics in reproduction and family health. This will sharpen the students understanding and application of economic concepts and techniques to health economics.

Topics to be taught shall include

- Overview of normative and positive economics of health sector.
- Human capital model
    - Basic model
    - Investment model
    - Pure competition model empirical testing
    - Extension
    - Health and schooling
- Habits and lifestyle
    - Smoking
    - Alcohol and sustenance abuse
    - Sexual behavior including contraceptive use
    - The government and lifestyle adjustment for health.

RHE 912: States Materials in Health and Healthcare Production.

This course is meant to further the student's exposure to the mechanisms of economic principles in explaining health economics, especially reproductive and family health. Lectures are therefore focused on peculiarities of health goods and their allocative implication as well as government finance and regulations of health

Topics to be taught therefore include:

- Externalities, public goods and including returns to scale
- Asymmetric information between producers and consumer
- Role of government arising from peculiarities of health goods
- Provision of services
    - Own facilities
    - Purchasing/contracting
- Regulation
- Appropriate roles of state and market.

ECO 913 Health Care Markets

This course focuses on the description of healthcare markets. It is meant to expose the students to the dynamics of healthcare market, the peculiarities of the market and their implications both the service providers and the clients. Topics to be considered are:

- Market prices and outputs
- Agency issues
- Moral hazards and consumer incentives for health care
- The industrial organization of health care
- Not-for-profit ownership and hospital behavior
- Economies of general practice
- The pharmaceutical industry

RHE 914 Insurance of Healthcare

This course is meant to expose the students to insurance of healthcare production generally. It therefore focuses on insurance markets, managed care contracting. The need to share the burden of the cost of healthcare especially incidences of

unforeseen contingencies in health underscores this course. Topics to be treated include:

- The autonomy of health insurance
- Insurance reimbursement
- Optical design of health insurance contract
- Health insurance and the labour market
- Social insurance
- Managed reproductive care

RHE 915 Macroeconomics of Health

This course is designed to take the students on an exploration of macroeconomics issues on reproductive health and health economics generally. It therefore focuses on the reproductive health, health and development challenges. The course forms the first part of the series of courses on health policy and planning issues which shall be completed in the second semester of the programme. The course therefore focuses on issues of economics of disease, poverty-health nexus growth-health relationships and conflict issues in health. Topics to be treated there shall include:

- Disease burden measurement
- Disease burden profile of Nigeria and Africa
- From poverty to health; impact of nutrition education, overcrowding on health
- From health to poverty; impact of poor health on labour market. (Absenteeism, low productivity)
- From growth to health
- From health to growth
- Environmental concern
- Types of conflicts and impact on health system
- Case studies,

Second Semester

RHE 921 Performance Evaluations

This course is meant to expose the students to methods performance evaluation in health systems. Evaluation issues shall be based on reproductive and family health. Analytical tools shall be varied from mathematics, statistics and econometrics. Topics shall therefore include:

- The measurement of health-related quality of life
- Advances in cost effectiveness analysis
- Hospital efficiency studies
    - Ratio analysis
    - Stochastic frontier analysis
    - Data development analysis
- Equity and efficiency in health care
- Equity in health care finances and delivery
- The equity-efficiency trade-off

RHE 922 Health Planning and Programming

This course is meant to expose students to planning and programming processes in healthcare with a special bias for reproductive and family health issues. This is needed for effective policy realization and health targets actualization. Topics to be treated are therefore

- Health expenditure and health account
- Partnership in public private mix
- Strategic health planning
- Scenario planning
- Operations research (Goal Programming)
- Stakeholders Analysis and concerns building tools

RHE 922 Globalization and Health

This course is meant to give health issues and in particular reproductive and family health issues a global exposure, especially recognizing the non-autarky nature of economies of the world today. It therefore focuses on health systems in Nigeria and Africa at large with a comparative bias as well as health and globalization. Topics therefore shall include:

- Comparative health systems
    - Basis for comparison
- International comparison of health expenditure and outcomes
- Changing trends in the state-markets mix
- International migration of health personnel
- Global public health issues

RHE 923 Health Sector Reforms

The economy is dynamic and so should the principles and policies that guide her activities. This is necessary for adequate policy engineering in reproductive and family health. This course shall therefore focus on health sector policy reforms with a special bias in reproduction and family health policy subsector.

Topics to be treated therefore are:

- Health sector reforms:
    - Reproductive and family health content
    - Global context
- African initiatives in health sector reforms
    - Reproductive and family health context
- Current trends in health sector reforms

- Reproductive and family health context

- Lessons for health policy development in Nigeria and Africa.

RHE 923 THESES. This shall be under the supervision of the department as prescribed by the programme. To wit: One local supervisor

One foreign supervisor

Subject to : internal defense in the department

External defense at post graduate school of studies.

ACADEMIC STAFF LIST

S/No	Name	Qualification	Status
2.	Monye-Emina, Anthony I.	Ph.D. (Benin), M.Sc. (Benin), B. Sc/Ed (AAU)	Professor and Head of Department
2.	Iyoha. Milton A.	Ph.D. (Yale), M.A. (Yale) B. A. (Oberlin)	Professor
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5.	Edo, Samson. E.	Ph. D. (Benin), M. SC. (Benin), B. Sc. (Ibadan)	Professor
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7.	Anyiwe, Mercy A. (Mrs.)	Ph. D. (AAU), M. Sc. (Benin) B.Sc. (Benin)	Professor
8.	Oaikhenan, Hassan E.	Ph. D. (Benin), M.Sc. (Benin) B.Sc. (Benin)	Professor
9.	Oriakhi, Dickson E.	Ph. D. (Benin), M.Sc. (Benin) B. Sc. (Benin)	Professor
10.	Izilein, Elizabeth I. (Mrs.)	Ph. D. (Benin), M. Sc. (Benin), PGDE (Benin), B. Sc. (Benin)	Associate Professor/Reader
11.	Oyefusi, Sulaimon, A.	Ph. D. (Benin), M. Sc. (Benin)	Senior Lecturer

		B. Sc. (Benin)	
12.	Okoduwa, Pascal. A.	M. Sc. (East Texas), B.Sc. (Dallas)	Senior Lecturer
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18.	Ogbeide, Frank I.	Ph. D. (Benin), M. Sc. (Benin) B. Sc. (Benin)	Lecturer 2
19.	Sowemimo, I. E. (Mrs.)	M.Sc. (Manchester), B. Sc. (Benin)	Lecturer 2
20.	Abusomwan, Success P.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
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22.	Arodoye, Nosakhare L.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
23.	Osemwegie, Presly K.	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
24.	Odjeba, O. P. (Mrs.)	M. Sc. (BIU), B. Sc. (Benin)	Assistant

			Lecturer
25.	Omo-Ikirodah, B. O. (Mrs.)	M. Sc. (Benin), B. Sc. (Benin)	Assistant Lecturer
26.	Mohammed, N.	M. Sc. (UNN), B. Sc. (Sokoto)	Assistant Lecturer
27.	Onwukeme, O. O.	M. Sc. (Ibadan), B.Sc. (Benin)	Assistant Lecturer
28.	Isuwa, D. F.	B. Sc. (ADSU)	Graduate Assistant
29.	Emediegwu, L. E.	B. Sc. (Benin)	Graduate Assistant
30.	Okoh, E. N.	B. Sc. (Benin)	Graduate Assistant

CURRICULUM FOR THE AWARD OF MASTERS OF SCIENCE
[M. Sc] (REPRODUCTIVE HEALTH)

DEPARTMENT OF NURSING SCIENCE

SCHOOL OF BASIC MEDICAL SCIENCES, COLLEGE OF MEDICAL SCIENCES

UNIVERSITY OF BENIN

FEBRUARY 2018

CURRICULUM FOR THE AWARD OF MASTERS OF SCIENCE [M.Sc] IN NURSING SCIENCE (REPRODUCTIVE HEALTH)

1. HISTORY OF THE PROGRAMME

Reproductive Health Nursing is a nursing specialty domiciled in the Department of Nursing Science. It is aimed at preparing nursing graduates in Reproductive Health clinical specialties to be able to face the challenges confronting nursing profession in Nigeria. The issues of reproductive health range from rapes, infertility, sexual problems and same sex marriage and their health implications. The programme aims to provide students with the skills, knowledge and understanding of health and health-care issues in middle and low income countries which will enable them to practise at a senior level internationally. The programme explores aspects of Sexual and Reproductive Health including maternal and neonatal health, family planning, prevention, diagnosis and management of STIs and HIV infection, adolescent health, gender and gender-based violence.

PHILOSOPHY OF THE PROGRAMME

The programme was established as a response to the national need of nursing manpower development. In the globalization of nursing, the trend is towards development of polyvalent graduateswho will provide quality care in health care delivery. Health care delivery requires sound knowledge and professional effectiveness and efficiency, products of the programme will be nurse clinicians.Thus the underlying philosophy of the programme is that

1. Man is a bio-psychosocial being with unique responsibility for health problems and his needs are the focus of all nursing activities.
2. Nursing is a professional relationship between the nurse and his/her client which is based on relevant concepts, principles and theories in the sciences, technology and the arts. It is client-centered; client-client-friendly and client-attested to ensure quality care.
3. Education is not only a life-long process; it is also an instrument of change. University education is the key to the growth of professionals, hence professional nursing education can be achieved in an institution of higher learning that provide a foundation for general education in the arts and sciences.
4. Nursing functions cut across the life span of individuals, families and communities within the health care delivery system. In order to provide

quality care, Nursing education must meet globally accepted standard as available in the University.

5. The health care system exists to meet the needs of the clients, individuals, families, group or communities, by providing primary, secondary and tertiary health maintenance activities that ensure maintenance of high level of wellness.

Based on the afore-mentioned principles, this programme sets out to produce educationally and professionally sound Nurses whose assertions on nursing care will be unequivocal in every aspect of client care. The programme will also be responsive to the needs of the society.

3. **Objectives**.

The Masters in Reproductive Health Nursing specialty is aimed at:-

a. Providing nurses with competences to function in the clinical areas of Reproductive Health.

The objective of the programme would be to develop the following competences expected of the graduate of the programme.

COMPETENCES EXPECTED OF POSTGRADUATES OF THE PROGRAMME

The competences of a nurse who is a postgraduate of these Degree programmes in Reproductive Health Nursing include the ability to:

- Utilize Nursing process in the care of individual, family and community with Reproductive health conditions.
- Adopt appropriate Nursing care delivery model in any setting.
- Assess reproductive health client/patient through history-taking, physical assessment, and review of relevant records and make appropriate nursing diagnoses.

- Apply relevant concepts, principles and theories of administration and management in delivery of health care services at various levels.
- Plan individual, family and community reproductive health nursing intervention.
- Assume responsibility for delivery of dependent, independent and interdependent Nursing activities in any setting.
- Evaluate Nursing care to ascertain effectiveness of nursing actions rendered to individuals, families and communities on objectives set.
- Develop strategies for health promotion and maintenance in families and communities.
- Develop proficiency in assessing, diagnosing, implementing and appropriate specialized Nursing care measure in any health problem situation.
- Provide rehabilitative services to individuals, families and adapt to changing conditions.
- Provide leadership in Nursing and health care delivery in their relevant specialties.
- Understand and assume leadership roles in budgeting, managing and auditing human and material resources available for health care delivery.
- Develop proficiency in interpreting special diagnostic reports to enhance management of client.
- Function as a nurse in any area of clinical practice to establish and maintain a referral system, researchers, academics and administrators/planners in all areas of reproductive health nursing.

4. ADMISSION REQUIREMENTS

a. All candidates must possess minimum of Second Class (Upper) while for Unclassified Degree should have CGPA of not less than 3.50

b. On completion of M.Sc programme candidates who obtained weighted score of 60% and above are eligible to proceed to PhD and candidates who score weighted score between 50% and 59% would be eligible for M. Phil programme

5. PROGRAMME DURATION.

M.Sc degree: minimum of 12 months and maximum of 24 months.

M.Phil degree: minimum of 2 semesters after obtaining the Masters Degree.

Doctorate degree: minimum of 6 semesters and a maximum of 12 semesters.

6. CONDITION FOR GRADUATION

a) Master's Degree

Candidate must pass between 30-40 credits units.

i) Core courses.
ii) Elective courses of minimum of 6 units.
iii) Dissertation of 6units. (I, ii and iii) Inclusive.

Continuous Assessment

This is in form of essays, tests, care or case studies, clinical reports, assignment, tutorial assignment etc. C A constitutes 30% of the total score.

Tutorial/ Seminars

All post graduate students are expected to undertake tutorial/ seminars.

External Examiner System

External examiner shall be used at the end of the postgraduate programme to assess courses and Dissertation/Thesis, to certify the overall performance of graduating students, as well as the quality of facilities and teaching.

8. Examinations, Grading Procedure and Results

(i) Examinations.

a) In addition to continuous assessment, examinations shall be conducted for every course at the end of each semester. The total score for each course shall be 100%.
It would be as follows:

Continuous assessment	30%
Examination	70%
Total	100%

b) A written examination shall last for a minimum of one hour for one credit unit and three hours for three credit units.
A practical examination shall last for a minimum of one hour and oral/viva, ten minutes.

(ii) Pass Mark:
The pass mark shall be 50% in any course.

(iii) Grading System

Courses shall be graded by a combination of percentage and translated into a graduated system of Grade point Equivalents (GPE).
For the purpose of determining student's stand, Grade Point Average (GPA) shall be used at the end of every semester.

Computation of GPA

*The total number of credit points earned (TCP) is divided by the total number of units (TNU) for all courses taken in the semester.

*The grade point of a course is computed by multiplying the number of units for the course by the Grade Point Equivalent of the marks scored in the course.

*Each course shall be graded out of a maximum of 100 marks and assigned appropriate Grade Point Equivalents (GPE).

(i) Total Credit Units	(ii) % Scores	(iii) Letter Grades	(iv) Grade Points (GP)	(v) Average (GPA)	(vi) (CGPA)
Vary according to contact hours	70 – 100	A	5	Derived by multiplying i and iv and dividing by total credit units	4.50 –5.00
	60 – 69	B	4		3.50 –4.49
	50 – 59	C	3		2.50 –3.49
	45 – 49	D	2		2.00 –2.49
	40 – 44	(F)	1		< 2. 00
	Below 40	E (F) F	0		

Condition for Withdrawal

Candidates who earn less than 8 credits from taught courses at the end of first year should withdraw from the programme.

6. COURSE OUTLINES FOR MASTER OF NURSING SCIENCE (REPRODUCTIVE HEALTH)

First Semester

Course Code	Course Title	Units	Remarks
PHRH810	Advanced Physiology and Pathophysiology of Reproductive Systems	2	R
AN RH 810	Advanced Anatomy of Reproductive Organsand Biotechnology.	2	R
AE RH 801	Advanced Biostatistics	3	C
NSRH 811	Advanced concept and theoretical foundation of Reproductive Health Nursing.	2	C
NSRH 812	Reproductive Health Law	2	C
NSRH 813	Nursing management of Reproductive Health Patients.	3	R
NSRH 814	Reproductive Health Nursing Management	2	E
NSRH 815	Advanced Health Assessment in Reproductive Health	2	R
NSRH 816	Clinical 1 (Hospital based)	2	R
Total Credits		**20**	

Second Semester

Course Code	Course Title	Units	Remarks
NSRH 821	Advanced Research Methods and Techniques applied to Nursing	3	C
NSRH822	Clinical (11 community based)	2	R
NSRH 823	Computer application in Reproductive Health Nursing	2	C
NSRH 824	Seminar in Reproductive Health Nursing	2	C
NSRH825	Contemporary issues in Reproductive Health nursing	2	C

NSRH826	Concepts in Reproductive Health Nursing and Family Health.	2	R
NSRH 827	Health Psychology for Reproductive Health Nursing	2	R
NSRH 828	Clinical Pharmacology & Therapeutics.	2	R
NSRH 899	Research Project	6	C
Total Credits		**23 Credits**	

COURSE CONTENT SPECIFICATIONS FOR MASTER OF SCIENCE PROGRAMME IN REPRODUCTIVE HEALTH NURSING.

PHRH 810:Advanced Physiology in Reproductive Systems: (2 credit units)
Reproductive and hormonal function.
This course explains the description of spermatogenesis, function of the seminal vesicles, function of the prostate gland, semen and male fertility.
The male sex act, testerone and other male sex hormone. Abnormality of male sexual function. The prostate gland and its abnormality, Hypogonadism in the male testicular tumour and hypergonadism in the male, Pineal body.
Pregnancy reproductive function and female hormone which include pregnancy, labour, lactation and special features of foetal and neonatal physiology. Gonads, Sex determination and differentiation. Male and female reproductive systems. Assessment of infertility, Hypothalamic-pituitary influence, menstrual cycle. Pregnancy and lactation. Gonad and Placental hormones, Puberty and menopause. Foetal circulation.

ANRH 810): Advanced Anatomy in Reproductive Organs. (2 credit units)
This course describes the structures of the reproductive systems which include the morphology, structure, function, location and subdivision of various parts such as ovaries uterine tubes, uterus and vagina and mammary glands and disorders of female reproductive systems.
Male reproductive organs which include scrotum, testes, ducts of the testes and accessory glands penis and pelvic floor and endocrine relationships such as pineal body, pituitary gland testes and ovaries. Introduction to assisted reproductive technologies, history of assisted reproductive technologies, sperm technologies, oocyte technologies, in vitro fertilization, environment of early embryo; Oviductal technologies, intracytoplasmic sperm injection, xenogenous egg incubation, cloning estrous cycle.
AERH 801 Advanced Biostatistics:(3units)

Includes the application of statistics in processing and analysis of data and report writing; parametric and non-parametric statistics; contingency table; measures of association, simple multiple and partial correlation, regression factor analysis, limited non-parametric correlation techniques and computer procedures for performing these techniques. It will also explore varying statistical method, software packages, networking approaches for health care professionals and development of data collection tools for nursing research. It is intended to help participants understand the benefits, difficulties and tensions of using a combined (qualitative and quantitative methods) approaches to health care research. This course will also introduce students to data analysis including multivariate techniques used in health care and epidemiological research such as multiple regression analysis, logistic analysis, factorial analysis of variance, multivariate analysis of variance and covariance, factorial analysis, path analysis, structural equation modeling and selected parametric techniques. The use of appropriate hardware and software is integrated throughout the course.

NSRH 811: Advanced concept and theoretical foundation of Reproductive Health Nursing. (2 credits)

Critical analysis of nursing process as an instrument for care. Critiques of theory development in nursing, applications of nursing process to selected nursing situations; Comparative evaluation of the Nursing process with other instruments of nursing care delivery: Practice in nursing theory development. The course is designed to foster the students understanding of their role as nurse practitioners, and the relationship between new developments and clinical practice, nursing education and policy forces. The students will further develop their ability to appraise critically health related policies, their potential and actual effect on clinical practice and education. It will also increase their knowledge of a range of contextual issues that relate to and impinge on nursing care, to enable them make critical judgments to their value with particular regard to the work force and patient care. Explore the necessity and utility of concepts and theories in practice discipline. Examine the processes of theory development, contribution and strategies for theory analysis and evaluation. It will also provide opportunities for students to deepen their understanding and appreciation to research theory by analyzing and discussing the relative merits of qualitative and quantitative research methods. It will also assess the evaluation of theoretical models for nursing practice

NSRH 812 Reproductive Health Law: (2 credits)

Legal issues and problems in health and impact on nursing practice. Health institution policy and the role of members.
Definition of terms: i e Licensure, Legal responsibility, Liability, Contract, Plaintiff, Defendant, Doctrine of Res Ipsa Loquitor, Negligence, The patient bill of right, Malpractice, Battery and Assault, Informed Consents, Damages.
Introduction to Nigeria legal system: the rights and responsibilities of the patients and nurses in the health profession. Selected legal studies and implications on nursing. The legal role of the nurse. Litigation and emergency nursing. Legal pitfalls in emergencies.
Legal implications in special patient situations such as mentally disturbed patients, Alcohol and substance abuse patients, attempted suicide patients and animal bite patients.
Telephone advice, Dispensing medication, When Police ask for help, obtaining evidence by the police, Felony – related cases, Non responsive on call doctor, Handling evidence properly, Care for the deceased.
Legal implications of attending to emergency on the scene of accident, the good Samarian laws. Responsibility to help and immunity from liability, consent to treat.
Type of Notifiable/ Reportable cases in emergencies. Refusal of treatment or erring against medical advice. The off duty nurse. The emergency team, Report writing, Report giving and teaching. Legal aspects of fertilization technology; genetic issues and right of forms.

NSRH 813: Nursing management of Reproductive Health Patients: (3 credit units)

This course will explain the disease process and management of female reproductive disorder using nursing process to manage vulva vaginal infection, such as bacteria, fungal, virus and HIV/AIDS. Structural disorder, benign disorder and malignant condition. Pregnancy related neoplasm and cancer of various structures. Hysterectomy and radiotherapy. Pre- & post -operative care and rehabilitation. Management of breast disorder, diagnostic evaluate; Infectious condition affecting the nipple, breast tissue, ca and benign tumor of the breast.
Current research in breast cancer and prophylactic mastectomy of breast cancer.
Special issues in breast cancer management.
Reproductive surgery.
Management of male reproductive disorders, assessment, diagnostic evaluation and disorder of male sexual function. Infection of male genitourinary tracts, conditions of the prostrate, testes and adjacent structures including the penis. Immunological systems and reproductive health related endocrine system disorder such as pituitary, pineal, testes and ovarian glands.

NSRH 814 :Reproductive Health Nursing Management: (2 units)

Classification of Nursing Science Practice, ethico-legals, standardization, Nursing audit and quality assurance, business environment, general management, financial management, feasibility studies, marketing and managerial problem solving, entrepreneurship development, Nursing Practice accreditations.
Health and Nursing Services Administration
Organization and administrative theories and its' application to Nursing services organizations, issues in Nursing manpower development and utilization; comparative and nursing service management information system; application of nursing process administrative problems; organization of nursing services to meet changing needs and demands; theories and practice s of evaluation.

NSRH 815 Advanced Health :Assessments in Reproductive Health Nursing: (3units)
Purpose of Physical examination.; Preparation and organization for examination. Techniques for physical assessment. General survey or appraisal of the patient's presentation and behavior. Measurement of vital signs. Assessment of height and weight.
Assessment of intergumentary system i e. the skin, hair, scalp and nails. Examination of head and neck includes assessment of head, eyes, nose, mouth, pharynx and neck.(lymph nodes, carotid arteries, thyroid gland and trachea) Physical assessment of the thorax and lungs. Assessment of heart function. Examination of the vascular system includes measuring of blood pressure and assessing the integrity of the peripheral vascular system. Examination of breasts of both male and female.
Abdominal examination.
Examination of female genitalia and reproductive tract.
Examination of male genitalia. Examination of rectum and anus. Assessment of musculoskeletal system. Assessment of neurological system.

NSRH 816: Clinical Reproductive Health Nursing Practice: (2 credits).
It is a clinical experience related to the development of knowledge and skills necessary for implementing intervention services of reproductive health patients.

NSRH 821 : Advanced Research Methods and Techniques applied to nursing :(3units).

Introduction- overview of research process, definition, types and purpose, significance of research in nursing, history of nursing research.

Research process- terms used in research, steps in the research process, literature review(library skills), theoretical frame work, definition and determination of

variables, formulation of hypothesis, research design, population, sample and sampling techniques, methods of data collection, data analysis and interpretation, report of findings, discussion of results, recommendation, references and bibliography, writing a research proposal.

Research communication- ethical issues, critique of research report, application of research process in clinical practice, acknowledgement of contributor and references, communicating research findings, utilization of research findings.

NSRH 822: Clinical Reproductive Health Nursing Practice: (2 units).
It is a clinical experience related to the development of knowledge and skills necessary for implementing intervention services of reproductive health patients.

NSRH 823 Computer application in Reproductive Health Nursing :(2units).
The course introduces the history of Computers, functional components of a computer, characteristics of a computer, problem solving flowcharts and algorithm. It also includes basic computer programming statement, Symbolic names: arrays subscripts expression and control statements and introduction to visual basic programming computer applications. Introduction to instructional design using a variety of computer and technology based media. The focus is on assisting students to gain skill instruction technology in enhancing learning in clinically-based educational setting in Reproductive Health Nursing. It will include packages such as internet, networking, animation, automation scanning, power points, Microsoft content eg Word process (editing &designing) and microprocessor.

NSRH 824: Nursing Seminar : (2units)
These seminars provide students the opportunity to pursue in-depth study of selected area in medical nursing. Nursing models and theories will be evaluated for their usefulness. Students will be required to presents two seminars in relevant areas of nursing research. This will include past and current issues and approaches in reproductive health nursing research contribution of research to Nursing Education and Practice.

NSRH 825 Contemporary Issues in Reproductive Health: (3units).
Human right and right violation.
Concept of reproductive health and theoretical approaches:-Human right and integrated approaches
Gender, same sex marriage and Cultural issues
Fertility and infertility
Adolescent sexuality and

Reproductive health
Safe motherhood including post abortion care
Infections of reproductive tract including STI/HIV/AIDS
Menopause and Andropause
Violence against women
Oncology Reproductive rights/health of refugees, differently able people, prisoners, displaced and underserved are highlighted

NSRH 826:Concepts in Reproductive Health Nursing and Family Health:(2units).

This course focuses on concepts and principles of reproductive health. It components as well as reproductive rights and ethical issues. Measurement of fertility. Reproductive health status of men and women in Nigeria. Behavioural factors that affects reproductive health. Formal education and reproductive health. The reproductive phase of life cycle as well as family planning and family health. The pre – menopausal and menopausal in relation to male (andropausal) and female reproductive health as a concept. Nigeria polices and reproductive health should also be emphasized. Communication of reproductive health information. Advocacy and community mobilization for reproductive health activities. Health education for reproductive health services. Quality care. Types of relationships including dating, courtship and marriage, Family. The psychological health of women and mothers Maternal, child and newborn health. Maternal morbidity and mortality. Integrated care and management. Child survival strategies. Peri-natal, Neonatal, infant, under five, school age mortality pattern. Integrated management of childhood diseases. Health and sexuality. Evaluation of FH services

NSRH 827: Health Psychology for Reproductive Health Nursing : (2units).

The course describes the introduction to the relationship between the functioning of social systems and behaviour and attitude of individual. It provides an overview of the principles of psychology. The students are taught advanced principles of growth and development, personality and theories of personal development. They are also exposed to advanced techniques of counseling, group structure as well as attitudes formation and attitudinal change. They student in the understanding of human behaviour in health and illness especially in reproductive health. Genetic counselling and counselling on the use of fertility technology

NSRH 828 :Clinical Pharmacology & Therapeutics: (2 units).

Definition and scope of pharmacology. Origin and sources of drug, routes of administration of drugs. Pharmacokinetics, absorption, distribution, metabolism and drug elimination. Pharmacodynamics- concepts of drug-receptor interactions, structure activity relationship, mode of action of drugs. Drug interactions, individual variation. Pharmacokinetics, tolerance and tachyphylaxis, Pharmacovililance (adverse drug reaction), drug development and evaluation including clinical trials

Systemic Pharmacology: The neuro-humoral transmission on neuro-effector sites, drugs acting on the reproductive organ/ systems, urinary, endocrine and nervous systems. Antimicrobial Chemotherapy, Antineoplastic chemotherapy and dermatological preparations.

NSRH 834: Thesis: (6units)

Research Project report on candidate's area of interest will be examined by external examiner.

LIST OF STAFF IN THE POSTGRADUATE PROGRAMMES

S/ No	Name	Qualification	Rank	Area Of Specialization
1	Dr. (Mrs.) Mabel O OSIFO	PhD, M.Sc, Pgd, BNSc., RN, RM,RNA, RNT,	Lecturer In-charge/ Lecturer 1	Community Health Nursing
2.	Dr. (Mrs.) Florence O. ADEYEMO	PhD (Health Education), M.Sc, (Community Health Nursing) B.Sc. Nursing, RN, R.M. RNT, RPHN Fip Cert. OHN FWACN	Senior Lecturer	Community Health Nursing
3.	Dr. Prisca Olabisi ADEJUMO	RN, RM, OHN, RFP, B.A (Nursing Education), M.Sc. (Medical Surgical Nursing), M.Sc. (Medical Sociology), PhD. (Medical Sociology) , Post doc (Genetic Nursing and Nursing Classification)IIWCC (Stellenbosch), PhD (Nursing in view)	Associate Professor	Medical Surgical Nursing
4	Dr. Fidelis Uchendi. OKAFOR	PhD, PGDE, M.HPM, B.Sc. Nursing, RNT, Dip. In Opthal. Nursing, Advance Dip. in Community Opthal. Nursing, FWACN.	Senior Lecturer / PG Co-coordinator	Medical Surgical Nursing/ Nursing Education
5	Dr. (Mrs) Beatrice, OHAERI	PhD. Nursing; RN/RM; FWACN	Senior Lecturer	Medical Surgical Nursing.
6.	Dr. (Mrs.) Filani	PhD, M.Sc, Pgd, BNSc., RN, RM,RNA, RNT,	Senior Lecturer	Maternal & Child Health Nursing
7	Mrs. Olufemi Y MAKINDE	M.Sc Nursing, Med Health Ed, BNSc, RN, R.M. RNT, RPHN	Lecturer 1	Maternal & Child Health Nursing

LISTS OF CLINICAL INSTRUCTORS

1.	Mrs. M L	MSc, B.Sc Health Education, RN,	Chief Clinical

	Obanor	RNT, RM	instructor.
2.	Mrs. M. Iniomor	B.Sc Social work. RN,RM RPHNT, MTD	Principal Clinical instructor.
3.	Mrs. M. Imoukhuede	MSc, B.Sc Health Education, RN, RNT, RPHN	Senior Clinical instructor.
4.	Mrs.J. Oko-ose	RN, RM, A/EON, B. Sc Ed Health Education, B.Sc Nursing, M.Sc. Physiology	Senior Clinical instructor.

LIST OF ASSOCIATE LECTURER IN OTHER DEPARTMENTS				**Area of Specialization**
1.	Prof. V. I. Iyawe	MBBS, PhD (London) DSport Medicine.	Professor.	Physiology
2.	Prof. L. F. O. Obika	BSc (IB), PhD (Cantab)	Professor.	Physiology
3.	Prof. A. Isah	MD, FMCP, FWACP.	Professor.	Medicine & Clinical Pharmacology
4.	Prof. A. B. Ebeigbe	BSc(IB), PhD (Glassow)	Professor.	Physiology
5.	Prof. D. L. Baxter- Grillo	LRCPI, LRCSL, LLM, DCH, FNMC, PhD	Professor.	Anatomy
6.	Prof. Mrs. M. I. Ebomoyi	BSc, M.Sc (IB), PhD (Benin)Cert. Basic Computing (London)	Professor.	Physiology
7.	Prof. A. D. A. Ighoroje (Mrs.)	BSc, PhD Physiology	Professor	Physiology
8	Prof I.N IBEH	B.Sc, M. Sc, Ph. D	Professor.	Medical Lab. Science
8.	Dr. Akoria	MBBS, FMCP	Senior Lecturer	Medicine
9.	Dr. Akhigbe	MBBS, FMCP Psychiatry	Associate	Mental Health

			Professor	& Psychiatric
10.	Prof. A. C Ugwu	B.Sc , M.phil PhD	Professor	Physiology
11.	Dr. J. E. Ataman	MBBS, (Uniben) MSc Anatomy (Uniben)	Senior Lecturer	Anatomy
12.	Dr. R. U. Erhunmwunse	BSc, M.Sc, PhD (Benin), AIBMS, FIBMS.	Senior Lecturer	Medical Biochemistry
13.	Dr. Mrs. H. A. Oboh	BSc, M.Sc, PhD (Benin),	Associate Professor	Medical Biochemistry
14.	Dr. E. B. Ezenwanne	BSc, M.Sc. PhD	Senior Lecturer	Physiology
15.	Dr. C. O. Azubike	MBBS, M.Sc, PhD	Senior Lecturer	Physiology
16.	Dr. F.A.E. Om'iniabohs	BSc, PhD., FRMS (Benin),	Senior Lecturer	Anatomy
17.	Dr. O.I. Ajayi	BSc, PhD	Senior Lecturer	Physiology
18.	Prof. (Ven) Mon Nwadiani	Dip The, B.Ed(Hon), M.ed, PhD	Professor	Education
19	Prof(Mrs) N.I Aniekwu	LLB Benin, BL Lagos, PGD (International Human Right Law) PhD (Lagos)	Professor.	Law
20	Prof.(Mrs) C.E. Ofovwe	B.Sc, M.Sc. Ph.D	Professor	Clinical Psychology

DEPARTMENT OF NURSING SCIENCE
SCHOOL OF BASIC MEDICAL SCIENCES,
COLLEGE OF MEDICAL SCIENCES

CURRICULUM FOR THE AWARD OF DOCTOR OF PHILOSOPHY (PH.D) DEGREE IN NURSING SCIENCE (REPRODUCTIVE HEALTH)

UNIVERSITY OF BENIN

FEBRUARY, 2018

1. HISTORY OF THE PROGRAMME

Reproductive Health Nursing is a nursing specialty domiciled in the Department of Nursing Science. It is aimed at preparing nursing graduates in Reproductive Health clinical specialties to be able to face the challenges confronting nursing profession in Nigeria. The issues of reproductive health range from rapes, infertility, sexual problems and same sex marriage and their health implications. The programme aims to provide students with the skills, knowledge and understanding of health and health-care issues in middle and low income

countries which will enable them to practise at a senior level internationally. The programme explores aspects of Sexual and Reproductive Health including maternal and neonatal health, family planning, prevention, diagnosis and management of STIs and HIV infection, adolescent health, gender and gender-based violence.

2. PHILOSOPHY OF THE PROGRAMME

The programme was established as a response to the national need of nursing manpower development. In the globalization of nursing, the trend is towards development of polyvalent graduateswho will provide quality care in health care delivery. Health care delivery requires sound knowledge and professional effectiveness and efficiency, products of the programme will be nurse clinicians/resesrcher .Thus the underlying philosophy of the programme is that

1. Man is a bio-psychosocial being with unique responsibility for health problems and his needs are the focus of all nursing activities.
2. Nursing is a professional relationship between the nurse and his/her client which is based on relevant concepts, principles and theories in the sciences, technology and the arts. It is client-centered; client-client-friendly and client-attested to ensure quality care.
3. Education is not only a life-long process; it is also an instrument of change. University education is the key to the growth of professionals, hence professional nursing education can be achieved in an institution of higher learning that provide a foundation for general education in the arts and sciences.
4. Nursing functions cut across the life span of individuals, families and communities within the health care delivery system. In order to provide quality care, Nursing education must meet globally accepted standard as available in the University.
5. The health care system exists to meet the needs of the clients, individuals, families, group or communities, by providing primary, secondary and tertiary health maintenance activities that ensure maintenance of high level of wellness.

Based on the afore-mentioned principles, this programme sets out to produce educationally and professionally sound Nurses whose assertions on nursing care will be unequivocal in every aspect of client care. The programme will also be responsive to the needs of the society.

3. **OBJECTIVES**.

The Doctor of Philosophy in Reproductive Health Nursing specialty is aimed at:-

a. Providing nurses with competences to function in the clinical, teaching and research areas of Reproductive Health.

The objective of the programme would be to develop the following competences expected of the graduate of the programme.

4. COMPETENCES EXPECTED OF POSTGRADUATES OF THE PROGRAMME

The competences of a nurse who is a postgraduate of these Degree programmes in Reproductive Health Nursing include the ability to:

- Utilize Nursing process in the care of individual, family and community with Reproductive health conditions.
- Adopt appropriate Nursing care delivery model in any setting.
- Assess reproductive health client/patient through history-taking, physical assessment, and review of relevant records and make appropriate nursing diagnoses.
- Apply relevant concepts, principles and theories of administration and management in delivery of health care services at various levels.
- Plan individual, family and community reproductive health nursing intervention.
- Assume responsibility for delivery of dependent, independent and interdependent Nursing activities in any setting.
- Evaluate Nursing care to ascertain effectiveness of nursing actions rendered to individuals, families and communities on objectives set.

- Develop strategies for health promotion and maintenance in families and communities.
- Develop proficiency in assessing, diagnosing, implementing and appropriate specialized Nursing care measure in any health problem situation.
- Provide rehabilitative services to individuals, families and adapt to changing conditions.
- Provide leadership in Nursing and health care delivery in their relevant specialties.
- Understand and assume leadership roles in budgeting, managing and auditing human and material resources available for health care delivery.
- Develop proficiency in interpreting special diagnostic reports to enhance management of client.
- Function as a nurse in any area of clinical practice to establish and maintain a referral system, researchers, academics and administrators/planners in all areas of reproductive health nursing.

4. ADMISSION REQUIREMENTS

a. On completion of M.Sc programme candidates who obtained weighted score of 60% and above are eligible to proceed to PhD and candidates who score weighted score between 50% and 59% would be eligible for M. Phil programme.

5. PROGRAMME DURATION.

M.Phil degree: minimum of 2 semesters after obtaining the Masters Degree.

Doctorate degree: minimum of two (2) years and a maximum of seven (7) years.

6. CONDITION FOR GRADUATION

To qualify for the award of the PhD degree in Nursing Science (Reproductive Health), a candidate must have

- Successfully completed the course of instruction and seminar presentation approved by the department.
- Submit and defend a Thesis.
- Meet the requirement as stipulated in the Regulations of the University's School of Postgraduate studies.

8. EXAMINATIONS, GRADING PROCEDURE AND RESULTS

Examinations

a) In addition to continuous assessment, examinations shall be conducted for every course at the end of each semester. The total score for each course shall be 100%.
It would be as follows:

Continuous assessment	30%
Examination	70%
Total	100%

b) A written examination shall last for a minimum of one hour for one credit unit and three hours for three credit units.
A practical examination shall last for a minimum of one hour and oral/viva, ten minutes.

(ii) Pass mark: shall be 50% in any course.

CONDITION FOR WITHDRAWAL

Candidates who earn less than 8 credits from taught courses at the end of first year should withdraw from the programme.

MASTERS OF PHILOSOPHY DEGREE PROGRAMME IN NURSING

This is an abridged programme for nurses who possess M.Sc. degrees in Nursing but with a weighted average score below 60% that is (55-59.9%) or CGPA less than 4.0 on a 5 scale grading in the course work, And also those whose transcripts reflect some deficiencies in their M.Sc. course work.

Transfer from M.Phil. to Ph.D.

Course Work Requirements
This will be tailored to the academic status/deficiencies of each candidate.

DOCTOR OF PHILOSOPHY IN REPRODUCTIVE HEALTH NURSING

Core Courses offered

Advanced Reproductive Health Nursing Theory Development.

Health Planning and Health Care Financing.

Seminar

Research Thesis.

Health Policy Analysis

Population and Family Planning

Health Systems Research.

First Semester

Course code	Course Title	Units	Remarks
NSRH 911	Advanced Reproductive Health Nursing Theory Development	3	
NSRH 912	Reproductive Health Planning and Financing.	3	
NSRH 913	Reproductive health Population and Family Planning	3	
NSRH 914	Reproductive Health Policy Analysis	3	
NSRH 921	Advanced Biostatistics and computer application as it apply to Nursing	2	
NSRH922	Reproductive Health System Research And nursing informatics	3	
NSRH 923	Seminar in Reproductive Health Nursing	3	
NSRH 999	Thesis	12	
Total Credits		**32 Credits**	

Course description

NSRH 911: Advanced Reproductive health Nursing Theory Development :(3 units).
Critical evaluation of the major theories and model development strategies used in nursing, construction of theoretical statement at specific theory level and the design of nursing research in which the theoretical statement will be examined.

NSRH912: Reproductive Health Planning and Financing :(3 units).
Health problems as the basis for planning health services; models of health care in developing and developed countries; health manpower planning including production and utililisation; cost-benefit analysis of health and Nursing services models and methods of financing health and nursing services, socio-economic and cultural factors, affecting cost and services comfort and evaluation in health planning and health financing with particular focus on Nursing services.

NSRH 913: Reproductive health Population and Family Health:(3 units).
Demography, population theories and politics, socio-cultural determination of fertility, models of fertility regulation behaviour, planning , programming and evaluation of family planning services, communication , information and education in the family planning; individual case study on the family health and population programmes.

NSRH 914: Reproductive Health Policy Analyses :(3 units).
The nature and dynamics of health policy formulation from a comparative perspective, a review of Nigeria and some developing countries' health policies, approaches to health policy, formulation, analysis and evaluation.

NSRH9 21: Advanced Biostatistics and computer application as it apply to Nursing: (2 units)
Includes the application of advanced statistics in processing and analysis of data and report writing: parametric and non-parametric statistics; contingency table; measures of association, simple multiple and partial correlation, regression factor analysis, limited non-parametric correlation techniques and computer procedures for performing these techniques. It will also explore varying statistical methods software packages, networking approaches for health care professionals and development of data collection tools for nursing research. It is intended to help participants understand the benefits difficulties and tensions of using a combined (qualitative and quantitative methods) approach to health care research.

NSRH 922: Reproductive Health System Research and nursing informatics: (3 units).

This course is about how to develop research proposals and conduct research that aims at supporting decision-making processes at all levels of health system with relevant information. It covers promotion of heath system research as a management tool, designing and conducting heath system research project for promotion of nursing services, dissemination and utilization of research funding and training of trainers for health system research.

NSRH 923: Research Seminar in Nursing :(3 units).

Student will be required to present two seminars in relevant areas of nursing research. This will include past and current issues and approaches in nursing research contribution of Research to Nursing Education and Practice.

NSRH 924): Thesis :(12 units)

Research Project on candidate's area of interest presented in a report (Dissertation) examined orally before panel of examiners.

LIST OF STAFF IN THE POSTGRADUATE PROGRAMMES

S/ NO	NAME	QUALIFICATION	RANK	Area of Specialization
1	Dr. (Mrs.) Mabel O OSIFO	PhD, M.Sc, Pgd, BNSc., RN, RM,RNA, RNT,	Lecturer In charge/ Lecturer 1	Community Health Nursing
		PhD (Health Education),	Senior	

2.	Dr. (Mrs.) Florence. O. ADEYEMO	M.Sc, (Community Health Nursing) B.Sc. Nursing, RN, R.M. RNT, RPHN Fip Cert. OHN FWACN	Lecturer	Community Health Nursing
3.	Dr. Prisca Olabisi ADEJUMO	RN, RM, OHN, RFP, B.Sc (Nursing Education), M.Sc. (Medical Surgical Nursing), M.Sc. (Medical Sociology), PhD. (Medical Sociology) , Post doc (Genetic Nursing and Nursing Classification) IIWCC (Stellenbosch), PhD (Nursing in view)	Associate Professor	Medical Surgical Nursing
4	Dr. Fidelis Uchendi. OKAFOR	PhD, PGDE, M.HPM, B.Sc. Nursing, RNT, Dip. In Opthal. Nursing, Advance Dip. in Community Opthal. Nursing, FWACN.	Senior Lecturer/ PG Co-coordinator	Medical-Surgical Nursing/ Nursing Education
5	Dr. (Mrs) Beatrice, OHAERI	PhD. Nursing; RN/RM; FWACN	Senior Lecturer	Medical - Surgical Nursing.
6.	Dr. (Mrs.) Filani	PhD, M.Sc, Pgd, BNSc., RN, RM,RNA, RNT,	Senior Lecturer	Maternal & Child Health Nursing

LISTS OF CLINICAL INSTRUCTORS

1.	Mrs. M L Obanor	MSc, B.Sc Health Education, RN, RNT, RM	Chief Clinical instructor.
2.	Mrs. M. Iniomor	B.Sc Social work. RN,RM RPHNT, MTD	Principal Clinical instructor.

3.	Mrs. M. Imoukhuede	MSc, B.Sc Health Education, RN, RNT, RPHN	Senior Clinical instructor.
4.	Mrs. J. Oko-ose	RN, RM, A/EON, B. Sc Ed Health Education, B.Sc Nursing, M.Sc. Physiology	Senior Clinical instructor.

LIST OF ASSOCIATE LECTURER IN OTHER DEPARTMENTS				**Area of Specialization**
1.	Prof. V. I. Iyawe	MBBS, PhD (London) DSport Medicine.	Professor.	Physiology
2.	Prof. L. F. O. Obika	BSc (IB), PhD (Cantab)	Professor.	Physiology
3.	Prof. A. O. Isah	MD, FMCP, FWACP.	Professor.	Medicine & Clinical Pharmacology
4.	Prof. A. B. Ebeigbe	B. Sc(IB), PhD (Glasgow)	Professor.	Physiology
5.	Prof. D. L. Baxter-Grillo	LRCPI, LRCSL, LLM, DCH, FNMC, PhD	Professor.	Anatomy
6.	Prof. Mrs. M. I. Ebomoyi	BSc, M.Sc (IB), PhD (Benin), Cert. Basic Computing (London)	Professor.	Physiology
7.	Prof. (Mrs.) A. D. A. Ighoroje	BSc, PhD Physiology	Professor	Physiology
8	Prof I.N IBEH	B.Sc, M. Sc, Ph. D	Professor.	Medical Lab. Science
8.	Dr. Akoria Obehi	MBBS, FMCP	Senior Lecturer	Medicine
9.	Dr. Akhigbe K	MBBS, FMCP	Associate	Mental Health

		Psychiatry	Professor	& Psychiatric
10.	Prof. A. C Ugwu	B.Sc , M.phil PhD	Professor	Physiology
11.	Dr. J. E. Ataman	MBBS, (Uniben) MSc Anatomy (Uniben)	Senior Lecturer	Anatomy
12.	Dr. R. U. Erhunmwunse	BSc, M.Sc, PhD (Benin), AIBMS, FIBMS.	Senior Lecturer	Medical Biochemistry
13.	Dr. Mrs. H. A. Oboh	BSc, M.Sc, PhD (Benin),	Associate Professor	Medical Biochemistry
14.	Dr. E. B. Ezenwanne	BSc, M.Sc. PhD	Senior Lecturer	Physiology
15.	Dr. C. O. Azubike	MBBS, M.Sc, PhD	Senior Lecturer	Physiology
16.	Dr. F.A.E. Om'iniabohs	BSc, PhD., FRMS (Benin),	Senior Lecturer	Anatomy
17.	Dr. O.I. Ajayi	BSc, PhD	Senior Lecturer	Physiology
18.	Prof. (Ven) Mon Nwadiani	Dip The, B.Ed(Hon), M.ed, PhD	Professor	Education
19	Prof(Mrs) N.I Aniekwu	LLB Benin, BL Lagos, PGD (International Human Right Law) PhD (Lagos)	Professor.	Law
20	Prof.(Mrs) C.E. Ofovwe	B.Sc, M.Sc. Ph.D	Professor	Clinical Psychology

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY
SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

CURRICULUM FOR AWARD OF MASTER OF SCIENCE (M.SC.) DEGREE

IN REPRODUCTIVE HEALTH

FEBRUARY, 2018

MASTER OF SCIENCE (M.SC.) DEGREE IN REPRODUCTIVE HEALTH

PREAMBLE

Reproductive Health (RH) is defined as a condition in which the reproductive process is accomplished in a state of complete physical, mental and social well-being and not merely the absence of disease or disorders of the reproductive process. It involves the study of subjects related to normal and abnormal structures and functions, including the various ways in which normal and abnormal structures function, biological and socio-economic factors affect the reproductive process, normal growth and development. Reproductive Health is a broad based subject that requires a multidisciplinary approach to effectively tackle the various aspects of a woman's health in relation to human reproduction.

Hitherto, the concept of Reproductive Health and Reproductive Health issues were either ill defined or were regarded as yet another term for Obstetrics and Gynaecology. For example, in the early eighties, although the concept of Reproductive Health had evolved, it was essentially limited to issues of contraception and fertility control. For this reason, Reproductive Health training and its parameters were limited largely to the undergraduate curriculum of Medical Students. Nevertheless, more than ever before, Reproductive Health and related issues have become an increasingly important aspect of health development. Rapid population increase, dwindling economic resources and the emergence of the HIV/AIDS pandemic and other sexually transmitted diseases underscore clearly the need to redefine our training protocols and areas of emphasis. This perhaps explains the rather unfortunate new and emerging concept that Reproductive Health almost exclusively relates to demography, population dynamics and social medicine. For a developing country like Nigeria, this trend poses challenges to complete understanding of the issues involved in relation to practice of reproductive health. While the training of students needs to be modified with increased emphasis on the social and population aspects of obstetric and gynaecological care, training of a new set of manpower at higher levels with adequate emphasis on all the components of Reproductive Health is now desirable.

In many developing countries including Nigeria, Reproductive Health is yet to be well developed. This has engendered the need to not only to raise awareness but also to develop capacity of the West African and other developing countries in innovative manner to provide reproductive health services at optimal levels though capacity building and applied research.

PHILOSOPHY OF THE PROGRAMME

The M.Sc. Reproductive Health Programme is designed to address reproductive health (RH) and RH-related issues critical to development. The programme address vital issues such as safe motherhood; planned population, maternal and child hood mortality, HIV and AIDS and other sexually transmitted infections and other sociodemographic issues related to RH. The aspiration is to train qualified individuals to international standards in order to greatly impact in improving reproductive health policies and services by producing cohorts of postgraduates that meet current developmental challenges related to reproductive health and rights in developing countries especially in the Africa sub-region. Internships in industries, exchange programmes and applied research are innovative components of the training programme that will better equip graduates in implementing prevention programmes with socio-cultural peculiarities.

The programme is specially beneficial for individuals working or intends to work in vital areas of Reproductive Health (RH) that address RH policies, family planning, prevention of HIV and AIDS and other sexually transmitted infections, maternal and childhood mortalities and gynaecological cancer prevention programmes. The graduates of this programme are expected to also provide services in Non-Governmental Organizations (NGOs), Community Based Organisations (CBOs) and academic institutions.

PROGRAMME OBJECTIVES

The M.Sc. Reproductive Health course is designed to provide students with detailed background knowledge and skills required to formulate and execute preventive programmes and to carry out applied research in Reproductive Health and critically appraise the findings. Linkage to industries is an innovative objective of this programme.

EXPECTED LEARNING OUTCOMES

The expected learning outcomes of the M. Sc. Programme in Reproductive Health include:

1. Understanding the main Reproductive Health challenges: Obstetric morbidity and mortality, unsafe motherhood; unwanted pregnancies; reproductive tract diseases including cancers, sexually transmitted infections, gender issues, adolescence, the concept of planning for family which consist of family planning and infertility treatment.
1. Obtaining skills for analyzing the determinants and consequences of reproductive ill health: epidemiology, statistics, demography and social science.
2. Ability to design research interventions focused on improving Reproductive Health through services and policies emphasizing preventive measures and mindful of socio-cultural peculiarities.
3. Acquisition of skills in protocol design, grant applications and presentations of research findings; monitory and evaluation of Reproductive Health programmes.
4. Computer literacy at an acceptable level of competence.

PROGRAMME TITLE

The programmes shall be titled: **Master of Science (M.Sc.) in Reproductive Health**

ADMISSION REQUIREMENTS

1. First degree from a university recognized by the University of Benin in Health, Natural or Social Sciences. For classed degrees, this shall be a minimum of 2nd Class Honours.
2. Applicants shall be selected by passing a qualifying examination. This shall be advertised during the admission process.
3. Applicants who are Nigeria citizens, in addition to the above, certificate of completion or exemption from the National Youth service Corps.

STRUCTURE OF THE PROGRAMME

The duration of the programme shall be a minimum of 12 months and a maximum of 24 months. The programme shall consist of 34 credits units of course work and a project of 6 credits (Total 40 Credits). The spread of the courses and credit units is as shown below:

TABLE 1: SPREAD OF COURSES AND CREDIT UNITS FOR MASTER IN REPRODUCTIVE HEALTH

Year	Semester	Number of Courses	Credit Units	Total Credit Units
I	1st	10	20	20
	2nd	6	14	14
		(Thesis)	6	6
	Total	**16 + Thesis**	**40**	**40**

The programme will be based in the Department of Obstetrics and Gynaecology, School of Medicine, University of Benin with inputs from relevant Departments in the University.

TABLE 2: ASSESSMENT AND GRADING

Assessment and grading of course and project are on the basis of the following scale:

% SCORE	ALPHABETIC GRADE	GRADE	POINTS
70 – 100	A	Excellent	5
60 – 69	B	Very good	4
50 – 59	C	Pass	3
0 – 49	D	Fail	0

Students must obtain a minimum of C (50%) in all prescribed courses and the project to pass.
Assessment would be 70% Examination and 30% Continuous Evaluation/Assessment.

CONDITIONS FOR GRADUATION

The following conditions must be met to qualify for graduation.

1. Passing the written examinations for the various courses at the respective semester examinations. For internship periods, there shall be no examinations but individual student reports shall be graded in accordance with departmental assessment schemes stipulated for that purpose.
2. Satisfactory defense of a completed thesis or dissertation in accordance with stipulated guidelines of the Postgraduate School for such purpose.

CONDITIONS FOR WITHDRAWAL

A student who fails a course in any semester must re-register for the course during the corresponding semester in the following year. No student shall be allowed to retake a failed course more than twice. Any student who fails to earn 8 credits in the first semester or 15 credits at the end of the first year (first and second semesters combined) shall be required to withdraw from the programme. A student who cannot complete the entire programme (including the project) within the University stipulated maximum period of 24 months shall be asked to withdraw from the programme.

TABLE 3: COURSES, COURSE CONTENTS AND CREDITS FOR FIRST SEMESTER

COURSE TITLE	CONTENTS	COURSE CREDITS (Total = 40)
	FIRST SEMESTER:	
OGRH 811	Reproductive Health: Introduction and Foundation	2
OGRH 812	Reproductive Health: Anatomy and Physiology of the Reproductive system	3
OGRH 813	Social Sciences; Behavioural and Social Dimensions to Reproductive Health	2
OGRH 814	Reproductive Health Issues: Maternal Morbidity and Mortality; Safe Motherhood including fetal surveillance and perinatal mortality	3

OGRH 815	Concepts and Practice of Emergency Obstetric Care	2
OGRH 816	Reproductive Health Issues: Adolescent Sexuality including HIV/AIDS and other sexually transmitted diseases	2
OGRH 817	Principles and Practice of Epidemiology in Reproductive Health	2
OGRH 818	Reproductive Health Issues: Fertility and Infertility in a developing economy; Contraception; Population, Development and Counseling	2
OGRH 819	Health Economics for Developing Countries	2
OGRH 899	Research Project Thesis (preliminaries – proposals, literature reviews, Seminars and data collection commenced in thissemester)	0
	TOTAL CREDITS	**20**

TABLE 4: COURSES, COURSE CONTENTS AND CREDITS FOR SECOND SEMESTER

Year 1	**SECOND SEMESTER:**	**COURSE CREDITS**
OGRH 820	Reproductive Health Issues: Gynaecological and Breast Cancers	3
OGRH 821	Reproductive Health Laws, Ethical Issues in Reproductive Health	2
OGRH 822	Abortion, post- abortion care and Abortion Debate	2
OGRH 823	Evidence Based Medicine in Reproductive Health, Research Ethics, Research design and Research Methodology	3
OGRH 824	Planning, Monitoring and Evaluation of Reproductive Health Programmes	2
OGRH825	Health statistics with Computing	2

OGRH 899	Research Project Thesis (continued – Seminars, data collection, analysis and defence)	6
	TOTAL CREDITS	20

COURSE DESCRIPTION

OGRH 811: Reproductive Health: Introduction and Foundation
2 Credits

The concept of Reproductive Health: foundations in Reproductive Health; safe motherhood; Adolescent Reproductive Health; unsafe abortion sexuality; gender issues; prostitution and trafficking; social, political and behavioural aspects of Reproductive Health.

OGRH 812:Reproductive Health: Anatomy and Physiology 3 Credits

Definitions; Basic anatomy and physiology: hypothalamic-pituitary control of reproduction, gonadal physiology – the testis and ovary, the uterus, pregnancy, parturition; infertility/fertility – assisted reproduction, fertility control; abortion.

OGRH 813:Social Sciences; Behavioural and Social Dimensions to Reproductive Health 2 Credits

Introduction to social science methods in Reproductive Health; survey research; experimental participant and non-participant research; community health survey; focus group discussion etc; Integrating social sciences viz social anthropology, sociology and psychology into the field of reproductive health; socio-cultural influence on Reproductive Health.

OGRH 814:Reproductive Health Issues: Maternal Morbidity and Mortality; Safe Mother-hood 2Credits

Introduction, what is maternal morbidity? The causes of maternal morbidity/mortality, what can be done to reduce maternal morbidity/mortality including the concept of safe motherhood?

OGRH 815: Fertility Counseling, Concepts of Emergency Obstetric Care
2 Credits

Introduction to fertility counseling family planning, sexually transmitted infection prevention etc including a 2 week posting at the Family Planning Clinic.
Introduction to the concepts of Emergency Obstetric Care (EmOC); establishment, organization and provision of services and sustainable revolving loan schemes. This will include a 2 week posting at the Emergency Unit of the Department of Obstetrics and Gynaeology, University of Benin Teaching Hospital.

OGRH 816:Reproductive Health Issues: Adolescent Sexuality including HIV/AIDS 2 Credits

Adolescence: definition, peculiarities, Reproductive Health problems/needs, models of Adolescent Reproductive Health programmes; HIV/AIDS and other sexually transmitted diseases: epidemiology, socio-cultural and Reproductive Health implication, prevention/treatment.

OGRH 817: Principles and Practice of Epidemiology in Reproductive Health 2 Credits General methods for describing the health of populations; principles and relative merits of different study designs and the appropriate methods for analysis; sources of bias in epidemiological studies and methods available to deal with them; epidemiological methods and their application in Reproductive Health; emerging trends in epidemiology.

OGRH 818:Reproductive Health Issues: Fertility and Infertility; Contraception; Population and Development 2 Credits
Fertility and infertility; basic demographic principles; population dynamics; population trends and its modification; family demography and fertility regulation; morbidity and mortality.

OGRH 819: Health Economics and Policy for Developing Countries
2 Credits
Basic economic principles; economy and health; health budgeting and finance models; sustainable health financing; national health financing scheme/national health insurance scheme. Management principles and models; politics and health.

OGRH 820:Reproductive Health Issues: Gynaecological and Breast Cancers
3 Credits

Gynaecological and breast cancers: epidemiology, presentation, presentation, prevention cum early detection (screening) programmes, socio-economic effects.

OGRH 821:Reproductive Health Laws, Ethical Issues in Reproductive Health and Ethical Issues in Reproductive Health
2 Credits
Legislations related to or affecting reproductive health: assessment of various nations' legislations inimical/beneficial to Reproductive Health; influencing legislation to benefit Reproductive Health. Ethical issues in the practice of Reproductive health, ethic committee formation and activities/role.

OGRH 822: Abortion, Post- abortion care and Abortion Debate 2 Credits
Abortion, Post- abortion care; Abortion debate: abortion as a contraceptive method-views, reality, risks, and future; abortion as backup for contraceptive failure; religious and socio-cultural influences; cost-benefit balance of contraception and abortion.

OGRH 823: Research Ethics and Research Methodology 3 Credits
This course shall address all relevant components of Ethics in Research design and methods in human subjects. This include qualitative and quantitative research, ecological research, counseling, research proposals and types of research; purpose of research, research process, data process, interpretation of results, report writing and dissemination of results, grant application and management. Evidence Based Medicine in Reproductive Health. International codes of ethical conduct in research,

OGRH 824: Planning, Monitoring and Evaluation of Reproductive Health Programmers 2 Credits
Peculiarities of Reproductive Health programmes, essentials of planning, monitoring and evaluation, advantages and disadvantages of the models of monitoring and evaluation, evolving concepts in monitoring and evaluation.

OGRH 825: Health Statistics with Computing 2 Credits
Numeracy in healthcare/medicine; health/vital statistics; data presentation, probability theory and application; test of significance etc; computer applications in medicine; problems and prospects of computers in medicine.

PRACTICUM
There shall be at least one month internship in industries

OGRH 899: Research Project **6 Credits**

Each candidate is to carry out a research project in any aspect of Reproductive Health. The aim is to give students an opportunity to apply and contribute to knowledge in Reproductive Health. Seminars shall be presented by the students at relevant stages of the project under the supervision of the supervisors (at least one internal and one external/regional or international) to the departmental board of postgraduate studies comprising all academic staff and supervisors. Thepreliminaries of the Research Project Thesis will commence in the first semester; proposals, literature reviews, Seminars and data collection shall commenced in the first semester and continued in the second trimester.

On completion of the project, there shall be project-defense before a well constituted body of examiners (internal and external) as stipulated by the University of Benin regulations for the award of postgraduate degrees.

ACADEMIC STAFF LIST

Serial No.	Resource Persons	Qualifications	Status	Department / Institutions/ Area of Specialization
Internal (Department of Obstetrics and Gynaecology, University of Benin, Benin City)				
1.	Prof. E.E. Okpere	MBBS, FRCOG, FMCOG, FWACS, FICS, D. Sc (Hons)	Professor	Maternal Fetal Medicine
2.	Prof. A.A.E. Orhue	MBBS, FRCOG, FMCOG, FWACS, FICS	Professor	Endocrinology and Infertility
3.	Prof. F.E. Okonofua	B.Sc, MB.CHB, FRCOG, FMCOG, FWACS, FICS , PhD, FAS	Professor	Oncology, Urogynaecology and Reproductive Health
4.	Prof. (Mrs.) A.O. Aisien	MBBS, FMCOG, FICS	Professor	Fertility Counseling and Management
5.	Prof. E.P. Gharoro	MBBS, FWACS , FMCOG, FICS	Professor	Oncology, Urogynaecology
6.	Prof. A.B.A. Ande	B.Sc (Hons), MB.CHB, FWACS, FICS, MPH	Professor	Maternal Fetal Medicine
7.	Prof. M.E. Aziken	MBBS, FWACS , FMCOG, MPH,	Professor	Endocrinology and Infertility

		D.MAS, Cert Sonography		
8.	Prof. J.U.E. Onakewhor	MBBS, M. Sc, MPH, FWACS , FICS	Professor	Maternal- Fetal Medicine
9.	Dr. A.E. Ehigiegba	MBBS, MRCOG, FWACS	Associate Professor	Fertility Counseling and Management
10.	Dr. C.A. Okonkwo	MBBS, FMCOG, FICS	Associate Professor	Oncology, Urogynaecology
11.	Dr. (Mrs.) P. A. Osemwenkhai	MBBS, FWACS , FICS, D.MAS, Cert Sonography	Senior Lecturer	Endocrinology and Infertility
12.	Dr. J.A. Osaikhuwuomwan	MBBS, FWACS, FMCOG	Senior Lecturer	Endocrinology and Infertility
13.	Dr. E. Enabudoso	MBBS, FMCOG, FWACS, MPH, Cert Fetal Med.	Lecturer 1	Maternal- Fetal Medicine
Staff Outside the Department Obstetrics and Gynaecology but in School of Medicine				
14.	Prof. (Mrs.) O.H. Okojie	MBBS, FMCPH, FWACP	Professor	Department of Community Health
15.	Prof. (Mrs.) A.O. Isah	MBBS, M. Sc, FMCPH, FWACP	Professor	Department of Community Health
16.	Prof. (Mrs.) A.N. Ofili	MBBS, FWACP, FMCP	Professor	Department of Community Health
17.	Dr. O. Adeleye	MBBS, MHPM, MPH, M.Sc, FWACP	Associate Professor	Department of Community Health
18.	Dr. J. Chiwuzie	MBBS, MPH, FWACP	Associate Professor	Department of Community Health
19.	Prof. M.N. Okobia	MBBS, FWACS, PhD	Professor	Department of Surgery

20.	Prof. M. Momoh	MBBS, FWACS	Professor	Department of Surgery
21.	Prof. V.I Iyawe	MBBS, PhD	Professor	Department of Physiology
22.	Prof. M.I. Ebowonyi	B.SC, PhD	Professor	Department of Physiology
23.	Dr. F.O. Agoreyo	BDS, M,Sc,	Senior Lecturer	Department of Physiology
24.	Prof. Baxter Grillo	MBBS, M.S, PhD	Professor	Department of Anatomy
25.	Dr. C.L. Sakpa	MBBS, PhD	Lecturer 1	Department of Anatomy
26.	Dr. J.E. Atamah	MBBS, M.Sc,	Lecturer 1	Department of Anatomy
Staff Outside the College of Medical Sciences but in the University of Benin, Benin City				
27.	Prof. C.F. Okolocha	B,Sc, M. Sc, PhD	Professor	Department of Sociology & Anthropology
28.	Prof. Omozefe	PhD	Professor	Department of Gender Studies
29.	Prof. (Mrs.) R.U. Obi	Phd	Professor	Department of Sociology & Anthropology
30.	Prof. (Mrs.) K. Eghafona	PhD	Professor	Department of Sociology & Anthropology
31.	Prof. (Mrs.) G.N. Vincent-Osaghae	B. Sc, M. Sc, PhD	Professor	Department of Sociology & Anthropology- Medical Sociology
32.	Dr. Bar. (Mrs.) Aniekwu	LLM, PhD , Dip (Intl Human Rights)	Associate Professor	Department of Public Health Law
33.	Bar. (Mrs.) Onuoha	LLM, PhD	Associate Professor	Department of Private and Property Law
34.	Prof. Anthony Ogbeibu	PhD	Professor	Department of Environmental Biology, University of Benin
35.	Prof. S.U.	B.Sc, M.	Professor	Department of Statistics/

	Ogbonmwan	Sc, DIC, PhD		Mathematics/Computer Studies
36.	Prof. S.E. Omosigho	B. Sc, M.Sc, MBA, PhD	Professor	Department of Statistics/ Mathematics/Computer Studies
37.	Prof. Osa Osemwota	PhD	Professor	Department Health Planning and Management
38.	Prof. (Mrs.) O. Okoro	PhD	Professor	Department of Education
39.	Dr. O.O. Omokhudu	PhD	Professor	Department of Accounting
Externals (National)				
40.	Prof. I.F. Adewole	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
41.	Prof. A. Oladokun	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
42.	Dr. A. Fawole	M.BBS, FWACS, FMCOG	Senior Lecturer	Department of Obstetrics and gynaecology, University of Ibadan
External (Regional International)				
43.	Professor Richard Adanu	MBBS, FWACS, MPH	Professor	Department of Obstetrics and Gynecology, University of Ghana
44.	Prof. Rene Xanvier Rerrin	MD. PG Fellowship (O&G)	Professor	Department of Obstetrics and Gynaecology, Dabomey Calavi University, Cotonou

45.	Prof. Lut Geerts	B.Sc, MRCOG	Professor	Stallenbosch University, South Africa
	External (Non-Regional International)			
46.	Prof Ana Langer	PhD	Professor	Harvard School of Public Health, Boston, USA
47.	Emeritus Prof. Rebecca Cooke	C.M, J.D., F.R.S.C	Professor	Reproductive Health Law program, University of Toronto
48.	Dr. Man Charurat,	PhD	Associate Professor	Institute of Human Virology, University of Maryland (IHV-UMB), Baltimore, USA Epidemiologist
49.	Prof. A. Odibo	MBBS, MD, MSE	Professor	Department of Obstetrics and Gynaecology, Washington University School of Medicine
50.	Prof. Jeremy Shiffman,	PhD	Professor	Department of Public Health, School of Medicine, Washington University, USA
51.	Prof. Malcolm Potts	PhD; FRCOG	Professor	University of California
52.	Prof. Staffan Bergstrom	FRCOG; PhD	Professor	Department of Obstetrics and Gynaecology University of Stockholm, Sweden
53.	Prof Andrzej Kulczycki	MD, PhD	Professor	University of Alabama at Birmingham, USA
54.	Prof Julia Hussein,	PhD; FRCOG	Professor	University of Aberdeen, Scotland , UK

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY

SCHOOL OF MEDICINE

COLLEGE OF MEDICAL SCIENCES

Curriculum for the Award of

DOCTOR OF PHILOSOPHY (PH.D) DEGREE
IN
REPRODUCTIVE HEALTH

PHD DEGREE IN REPRODUCTIVE HEALTH

PREAMBLE

Reproductive health is defined as a condition in which the reproductive process is accomplished in a state of complete physical, mental and social well being and not merely the absence of disease or disorders of the reproductive process. It involves the study of subjects related to the normal and abnormal structures and functions, including the various ways in which normal and abnormal structure and functions, biological and socio-economic factors affect the reproductive process, normal growth and development. Reproductive health is a broad based; multidisciplinary approach is required to effectively tackle the various aspects of reproductive health.

Hitherto, reproductive health issues were either ill defined or were regarded as yet another term for Obstetrics and Gynaecology. For example, in the early eighties, although the concept of reproductive health had evolved, it was essentially limited to issues of contraception and fertility control. For this reason, reproductive health training and its parameters were limited largely to the undergraduate curriculum of Medical students only. Nevertheless, more than ever before, reproductive health and related issues have become an increasingly important aspect of health development. Rapid population increase, dwindling economic resources and the emergence of the HIV/AIDS pandemic underscore clearly the need to redefine our training protocols and area of emphasis. This perhaps explains the rather unfortunate new and emerging concept that reproductive health almost exclusively relates to demography, population dynamics and social medicine. For a developing country like Nigeria, this trend is unacceptable. While the training of students needs to be modified with increased emphasis on the social and population aspects of Obstetric and Gynaecological care, training of a new set of manpower with adequate emphasis on all the components of reproductive health is now desirable.

PHILOSOPHY OF THE PROGRAMME

The PhD programme in reproductive health aspires to train students to international standards. Those trained will be better equipped to consider socio-cultural peculiarities in implementing programmes to improve the reproductive health in Nigeria, West Africa, Africa and the entire world.

PROGRAMME AIMS

The PhD reproductive health course in addition to the objectives of the M. Sc reproductive health, is geared towards preparing students for advances research and academic career in reproductive health.

GENERAL OBJECTIVES

The PhD degree course is designed in such a way that it is of high quality and able to compete internationally. The products of the course should be able to provide high quality training to junior and middle level manpower in academics and health care institutions. Also, the product should be able to carry out high quality applied research and provide competent managerial capacity for intervention programmes that contribute to the provision of high quality reproductive health services that will lead to reduction of maternal and childhood mortality.

EXPECTED LEARNING OUTCOMES

1. Understanding the reproductive health challenges: Obstetric morbidity and mortality, unsafe motherhood; unwanted pregnancies; reproductive tract diseases including cancers, sexually transmitted infections, gender issues, adolescence, the concept of planning for family which consist of family planning and infertility treatment.
2. Obtaining skills for analyzing the determinants and consequences of reproductive ill health: epidemiology, statistics, demography and social science.
3. Ability to design research interventions focused on improving reproductive health through services and policies emphasizing preventive measures and mindful of socio-cultural peculiarities.
4. Acquisition of skills in protocol design, grant application and presentations of research findings, monitoring and evaluation of reproductive health programmes.

PROGRAMME TITLE

Doctor of Philosophy (PhD) in Reproductive Health

ADMISSION REQUIREMENTS

1. M. Sc in reproductive health or MBBS /BDS Degree from the University of Benin or any of these degrees from universities recognised by the University of Benin, Benin City Nigeria. Also acceptable are Masters degree's in relevant fields (e.g Maternal, Child or Public Health) from the University of Benin or any other universities recognised by the University of Benin.
2. Candidates that have no Masters degree will be required to take courses meant for the Masters programme in the first year. This shall however be without thesis. To continue with the PhD course in the second year, the candidate must have an average score of 60% at the end of the first year.

3. A candidate with Masters degree will be qualified for admission into the PhD Reproductive Health course only if he/she has an average score of 60% or letter B in the Masters degree.
4. Candidates will be expected to pass a written and oral exam to be conducted by the Department of Obstetrics and Gynaecology

PROGRAMME DURATION

The duration of the programme is a minimum of 24months and maximum of 36months

CONDITIONS FOR GRADUATION

1. The candidate must pass an oral defence for the completed dissertation/thesis in line with the guidelines of the Postgraduate School.
2. Meet all the requirements as stipulated in the regulations of the University's School of Postgraduate studies.

CONDITIONS FOR WITHDRAWAL

A student who fails to complete the programme in 5 academic sessions will be required to withdraw.

TABLE 3: COURSES, COURSE CONTENTS AND CREDITS FOR FIRST SEMESTER

COURSE TITLE	CONTENTS	COURSE CREDITS (Total = 40)
FIRST SEMESTER:		

OGRH 811	Reproductive Health: Introduction and Foundation	2
OGRH 812	Reproductive Health: Anatomy and Physiology of the Reproductive system	3
OGRH 813	Social Sciences; Behavioural and Social Dimensions to Reproductive Health	2
OGRH 814	Reproductive Health Issues: Maternal Morbidity and Mortality; Safe Motherhood including fetal surveillance and perinatal mortality	3
OGRH 815	Concepts and Practice of Emergency Obstetric Care	2
OGRH 816	Reproductive Health Issues: Adolescent Sexuality including HIV/AIDS and other sexually transmitted diseases	2
OGRH 817	Principles and Practice of Epidemiology in Reproductive Health	2
OGRH 818	Reproductive Health Issues: Fertility and Infertility in a developing economy; Contraception; Population, Development and Counseling	2
OGRH 819	Health Economics for Developing Countries	2
OGRH 899	Research Project Thesis (preliminaries – proposals, literature reviews, Seminars and data collection commenced in this semester)	0
	TOTAL CREDITS	**20**

TABLE 4: COURSES, COURSE CONTENTS AND CREDITS FOR SECOND SEMESTER

Year 1	SECOND SEMESTER:	COURSE CREDITS
OGRH 820	Reproductive Health Issues: Gynaecological and Breast Cancers	3
OGRH 821	Reproductive Health Laws, Ethical Issues in Reproductive Health	2
OGRH 822	Abortion, post- abortion care and Abortion Debate	2
OGRH 823	Evidence Based Medicine in Reproductive Health, Research Ethics, Research design and Research Methodology	3
OGRH 824	Planning, Monitoring and Evaluation of Reproductive Health Programmes	2
OGRH825	Health statistics with Computing	2
OGRH 899	Research Project Thesis (continued – Seminars, data collection, analysis and defence)	6
	TOTAL CREDITS	20

COURSE DESCRIPTION

OGRH 811: Reproductive Health: Introduction and Foundation
2 Credits

The concept of Reproductive Health: foundations in Reproductive Health; safe motherhood; Adolescent Reproductive Health; unsafe abortion sexuality; gender issues; prostitution and trafficking; social, political and behavioural aspects of Reproductive Health.

OGRH 812:Reproductive Health: Anatomy and Physiology 3 Credits

Definitions; Basic anatomy and physiology: hypothalamic-pituitary control of reproduction, gonadal physiology – the testis and ovary, the uterus, pregnancy, parturition; infertility/fertility – assisted reproduction, fertility control; abortion.

OGRH 813:Social Sciences; Behavioural and Social Dimensions to Reproductive Health 2 Credits

Introduction to social science methods in Reproductive Health; survey research; experimental participant and non-participant research; community health survey; focus group discussion etc; Integrating social sciences viz social anthropology, sociology and psychology into the field of reproductive health; socio-cultural influence on Reproductive Health.

OGRH 814:Reproductive Health Issues: Maternal Morbidity and Mortality; Safe Motherhood 2Credits

Introduction, what is maternal morbidity? The causes of maternal morbidity/mortality, what can be done to reduce maternal morbidity/mortality including the concept of safe motherhood?

OGRH 815: Fertility Counseling, Concepts of Emergency Obstetric Care 2 Credits

Introduction to fertility counseling family planning, sexually transmitted infection prevention etc including a 2 week posting at the Family Planning Clinic.
Introduction to the concepts of Emergency Obstetric Care (EmOC); establishment, organization and provision of services and sustainable revolving loan schemes. This will include a 2 week posting at the Emergency Unit of the Department of Obstetrics and Gynaeology, University of Benin Teaching Hospital.

OGRH 816:Reproductive Health Issues: Adolescent Sexuality including HIV/AIDS 2 Credits

Adolescence: definition, peculiarities, Reproductive Health problems/needs, models of Adolescent Reproductive Health programmes; HIV/AIDS and other sexually transmitted diseases: epidemiology, socio-cultural and Reproductive Health implication, prevention/treatment.

OGRH 817: Principles and Practice of Epidemiology in Reproductive Health 2 Credits

General methods for describing the health of populations; principles and relative merits of different study designs and the appropriate methods for analysis; sources of bias in epidemiological studies and methods available to deal with them; epidemiological methods and their application in Reproductive Health; emerging trends in epidemiology.

OGRH 818:Reproductive Health Issues: Fertility and Infertility; Contraception; Population and Development 2 Credits

Fertility and infertility; basic demographic principles; population dynamics; population trends and its modification; family demography and fertility regulation; morbidity and mortality.

OGRH 819: Health Economics and Policy for Developing Countries 2 Credits

Basic economic principles; economy and health; health budgeting and finance models; sustainable health financing; national health financing scheme/national health insurance scheme. Management principles and models; politics and health.

OGRH 820:Reproductive Health Issues: Gynaecological and Breast Cancers 3 Credits

Gynaecological and breast cancers: epidemiology, presentation, presentation, prevention cum early detection (screening) programmes, socio-economic effects.

OGRH 821:Reproductive Health Laws, Ethical Issues in Reproductive Health and Ethical Issues in Reproductive Health 2 Credits

Legislations related to or affecting reproductive health: assessment of various nations' legislations inimical/beneficial to Reproductive Health; influencing legislation to benefit Reproductive Health. Ethical issues in the practice of Reproductive health, ethics committee formation and activities/role

OGRH 822: Abortion, Post- abortion care and Abortion Debate 2 Credits

Abortion, Post- abortion care; Abortion debate: abortion as a contraceptive method-views, reality, risks, and future; abortion as backup for contraceptive failure; religious and socio-cultural influences; cost-benefit balance of contraception and abortion.

OGRH 823: Research Ethics and Research Methodology 3 Credits

This course shall address all relevant components of Ethics in Research design and methods in human subjects. This include qualitative and quantitative research, ecological research, counseling, research proposals and types of research; purpose of research, research process, data process, interpretation of results, report writing and dissemination of results, grant application and management. Evidence Based Medicine in Reproductive Health. International codes of ethical conduct in research,

OGRH 824: Planning, Monitoring and Evaluation of Reproductive Health Programmers 2 Credits

Peculiarities of Reproductive Health programmes, essentials of planning, monitoring and evaluation, advantages and disadvantages of the models of monitoring and evaluation, evolving concepts in monitoring and evaluation.

OGRH 825: Health Statistics with Computing 2 Credits

Numeracy in healthcare/medicine; health/vital statistics; data presentation, probability theory and application; test of significance etc; computer applications in medicine; problems and prospects of computers in medicine.

PRACTICUM

There shall be at least one month internship in industries

OGRH 899: Research Project 6 Credits

Each candidate is to carry out a research project in any aspect of Reproductive Health. The aim is to give students an opportunity to apply and contribute to knowledge in Reproductive Health. Seminars shall be presented by the students at relevant stages of the project under the supervision of the supervisors (at least one internal and one external/regional or international) to the departmental board of postgraduate studies comprising all academic staff and supervisors. On completion of the project, there shall be project-defense before a well constituted body of examiners (internal and external) as stipulated by the University of Benin regulations for the award of post-graduate degrees.

DISSERTATION/THESIS PROPOSAL

A candidate is expected to have considered a major research problem, in form of a research question, for their dissertation/thesis the prior to commencing or within the first semester of the programme. This concept should be in applied research and should be developed into clearly stated objectives around which they are to conduct a systematic review. This will serve as a precursor to a full dissertation proposal by the end of their first year of study. The systematic review should be

such that it is suitable for publication in a reputable academic journal. Below is the time table for the programme

1st Semester

(a) The candidate should have chosen a Proposal for the PhD thesis. He/she should have conducted and submitted a systematic review of literature related to the intended dissertation. The Proposal and systematic review of literature shall be presented to the Departmental Postgraduate Committee as a seminar for consideration.

(b) When satisfied, the Departmental Postgraduate Committee shall assign three reviewers for the systematic review.

(c) During this semester, candidates shall update their knowledge through lectures on Research Ethics and Research Methodology

2nd Semester

(a). The student prepares a final copy of the systematic review, following the reviewers' comments and submits it to the Departmental Postgraduate Committee for consideration. On the committee's satisfactory assessment and on the advice of the reviewers, the candidate shall be granted approval to proceed with developing and submitting a dissertation proposal.

(b) The candidate develops and submits a draft dissertation proposal to the departmental Postgraduate committee.

(c) The Departmental Postgraduate Committee recommends to the School of Postgraduate Studies (through the School of Medicine Board of Studies and College Academic Board) two supervisor for the dissertation. One of these supervisors shall be a regional or international academic staff

(d) The supervisors shall determine that the proposal is good enough to undergo a review process.

(e) The supervisor sends the draft proposal for review by three reviewers, at least two of whom shall be professors in recognised Universities.

(f) The candidate makes changes to the proposal, if indicated. With the assistance of the supervisor, the student seeks an ethical approval for the intended research from the relevant Ethics and research committee in line with the provisions of the National Code of Health Research Ethics.

(g) Approval of the School of Postgraduate Studies for the title and dissertation

(h) The candidate presents the proposal to the Department as a doctoral seminar

(i) The candidate commences field work on the dissertation.

3rd Semester

(a). The candidate shall present preliminary report of the of the field work to the Department for evaluation.

4th Semester

(a) The candidate shall present final report of the thesis and prepare for its defense.

(b). Defense of the Thesis

ACADEMIC STAFF LIST

Serial No.	Resource Persons	Qualifications	Status	Department / Institutions/ Area of Specialization
Internal (Department of Obstetrics and Gynaecology, University of Benin, Benin City)				
1.	Prof. E.E. Okpere	MBBS, FRCOG, FMCOG, FWACS, FICS, D. Sc (Hons)	Professor	Maternal Fetal Medicine
2.	Prof. A.A.E. Orhue	MBBS, FRCOG, FMCOG, FWACS, FICS	Professor	Endocrinology and Infertility
3.	Prof. F.E. Okonofua	B.Sc, MB.CHB, FRCOG, FMCOG, FWACS, FICS , PhD, FAS	Professor	Oncology, Urogynaecology and Reproductive Health
4.	Prof. (Mrs.) A.O. Aisien	MBBS, FMCOG, FICS	Professor	Fertility Counseling and Management
5.	Prof. E.P. Gharoro	MBBS, FWACS , FMCOG, FICS	Professor	Oncology, Urogynaecology

6.	Prof. A.B.A. Ande	B.Sc (Hons), MB.CHB, FWACS, FICS, MPH	Professor	Maternal Fetal Medicine
7.	Prof. M.E. Aziken	MBBS, FWACS , FMCOG, MPH, D.MAS, Cert Sonography	Professor	Endocrinology and Infertility
8.	Prof. J.U.E. Onakewhor	MBBS, M. Sc, MPH, FWACS , FICS	Professor	Maternal- Fetal Medicine
9.	Dr. A.E. Ehigiegba	MBBS, MRCOG, FWACS	Associate Professor	Fertility Counseling and Management
10.	Dr. C.A. Okonkwo	MBBS, FMCOG, FICS	Associate Professor	Oncology, Urogynaecology
11.	Dr. (Mrs.) P. A. Osemwenkhai	MBBS, FWACS , FICS, D.MAS, Cert Sonography	Senior Lecturer	Endocrinology and Infertility
12.	Dr. J.A. Osaikhuwuomwan	MBBS, FWACS, FMCOG	Senior Lecturer	Endocrinology and Infertility
13.	Dr. E. Enabudoso	MBBS, FMCOG, FWACS, MPH, Cert Fetal Med.	Lecturer 1	Maternal- Fetal Medicine
Staff Outside the Department Obstetrics and Gynaecology but in School of Medicine				
14.	Prof. (Mrs.) O.H. Okojie	MBBS, FMCPH, FWACP	Professor	Department of Community Health
15.	Prof. (Mrs.) A.O.	MBBS, M.	Professor	Department of Community Health

	Isah	Sc, FMCPH, FWACP		
16.	Prof. (Mrs.) A.N. Ofili	MBBS, FWACP, FMCP	Professor	Department of Community Health
17.	Dr. O. Adeleye	MBBS, MHPM, MPH, M.Sc, FWACP	Associate Professor	Department of Community Health
18.	Dr. J. Chiwuzie	MBBS, MPH, FWACP	Associate Professor	Department of Community Health
19.	Prof. M.N. Okobia	MBBS, FWACS, PhD	Professor	Department of Surgery
20.	Prof. M. Momoh	MBBS, FWACS	Professor	Department of Surgery
21.	Prof. V.I Iyawe	MBBS, PhD	Professor	Department of Physiology
22.	Prof. M.I. Ebowonyi	B.SC, PhD	Professor	Department of Physiology
23.	Dr. F.O. Agoreyo	BDS, M,Sc,	Senior Lecturer	Department of Physiology
24.	Prof. Baxter Grillo	MBBS, M.S, PhD	Professor	Department of Anatomy
25.	Dr. C.L. Sakpa	MBBS, PhD	Lecturer 1	Department of Anatomy
26.	Dr. J.E. Atamah	MBBS, M.Sc,	Lecturer 1	Department of Anatomy
Staff Outside the College of Medical Sciences but in the University of Benin, Benin City				
27.	Prof. C.F.	B,Sc, M. Sc,	Professor	Department of Sociology &

	Okolocha	PhD		Anthropology
28.	Prof. Omozefe	PhD	Professor	Department of Gender Studies
29.	Prof. (Mrs.) R.U. Obi	Phd	Professor	Department of Sociology & Anthropology
30.	Prof. (Mrs.) K. Eghafona	PhD	Professor	Department of Sociology & Anthropology
31.	Prof. (Mrs.) G.N. Vincent-Osaghae	B. Sc, M. Sc, PhD	Professor	Department of Sociology & Anthropology-Medical Sociology
32.	Dr. Bar. (Mrs.) Aniekwu	LLM, PhD , Dip (Intl Human Rights)	Associate Professor	Department of Public Health Law
33.	Bar. (Mrs.) Onuoha	LLM, PhD	Associate Professor	Department of Private and Property Law
34.	Prof. Anthony Ogbeibu	PhD	Professor	Department of Environmental Biology, University of Benin
35.	Prof. S.U. Ogbonmwan	B.Sc, M. Sc, DIC, PhD	Professor	Department of Statistics/ Mathematics/Computer Studies
36.	Prof. S.E. Omosigho	B. Sc, M.Sc, MBA, PhD	Professor	Department of Statistics/ Mathematics/Computer Studies
37.	Prof. Osa Osemwota	PhD	Professor	Department of Health Planning and Management

38.	Prof. (Mrs.) O. Okoro	PhD	Professor	Department of Education
39.	Dr. O.O. Omokhudu	PhD	Professor	Department of Accounting
Externals (National)				
40.	Prof. I.F. Adewole	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
41.	Prof. A. Oladokun	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
42.	Dr. A. Fawole	M.BBS, FWACS, FMCOG	Senior Lecturer	Department of Obstetrics and gynaecology, University of Ibadan
	External (Regional International)			
43.	Professor Richard Adanu	MBBS, FWACS, MPH	Professor	Department of Obstetrics and Gynecology, University of Ghana
44.	Prof. Rene Xanvier Rerrin	MD. PG Fellowship (O&G)	Professor	Department of Obstetrics and Gynaecology, Dabomey Calavi University, Cotonou
45.	Prof. Lut Geerts	B.Sc, MRCOG	Professor	Stallenbosch University, South Africa

	External (Non-Regional International)			
46.	Prof Ana Langer	PhD	Professor	Harvard School of Public Health, Boston, USA
47.	Emeritus Prof. Rebecca Cooke	C.M, J.D., F.R.S.C	Professor	Reproductive Health Law program, University of Toronto
48.	Dr. Man Charurat,	PhD	Associate Professor	Institute of Human Virology, University of Maryland (IHV-UMB), Baltimore, USA Epidemiologist
49.	Prof. A. Odibo	MBBS, MD, MSE	Professor	Department of Obstetrics and Gynaecology, Washington University School of Medicine
50.	Prof. Jeremy Shiffman,	PhD	Professor	Department of Public Health, School of Medicine, Washington University, USA
51.	Prof. Malcolm Potts	PhD; FRCOG	Professor	University of California
52.	Prof. Staffan Bergstrom	FRCOG; PhD	Professor	Department of Obstetrics and Gynaecology University of Stockholm, Sweden
53.	Prof Andrzej Kulczycki	MD, PhD	Professor	University of Alabama at Birmingham, USA
54.	Prof Julia	PhD;	Professor	University of Aberdeen,

	Hussein,	FRCOG		Scotland , UK

DEPARTMENT OF OBSTETRICS AND GYNAECOLOGY
SCHOOL OF MEDICINE
COLLEGE OF MEDICAL SCIENCES

CURRICULUM FOR
SHORT TERM COURSES
FOR THE AWARD OF CERTIFICATES
IN
REPRODUCTIVE HEALTH

UNIVERSITY OF BENIN

FEBRUARY 2018

SHORT TERM COURSES IN REPRODUCTIVE HEALTH

PREAMBLE

High maternal and child mortality from preventable causes has continued to be a major public health challenge to both government and the society in general. Nigeria has one of the worst indices of reproductive health in the world. High parity, ante-partum and post partum haemorrhages, eclampsia, obstructed labour and its sequalae, post-partum infections, and complications from induced and

septic abortions from unwanted pregnancies are some of the leading causes of the high rates of maternal and perinatal morbidities and mortalities.
The short term courses in reproductive health in thematic areas of Obstetrics and Gynaecology are designed to equip and enhance the knowledge base of health care providers in private and public health facilities and institutions and makers of policies on reproductive health to institute appropriate interventions targeted at the factors associated with poor maternal and child health indices in Nigeria and the West African sub-region.

PROGRAMME TITLE:
Certificates of attendance shall be awarded in reproductive health in the thematic areas listed below.

Entry Qualification
1. Diploma in nursing, RM, RN
2. Bachelors degree in Health Sciences from any recognised university
3. First degree in Medicine

Conditions for the award of the Certificates
To obtain a certificate of attendance, a candidate must have at least 70% attendance in all sections of the course.

1. CERTIFICATE IN FAMILY PLANNING METHODS

This is a minimum of 40-hour certificate course made up of at least 20hours of lectures and 20hours of practicum. The course content includes various types of family planning types, reversible and irreversible methods, surgical procedures, and counseling techniques and follow-up methods.

LECTURES
1. Overview of Family Planning in Nigeria- *(Module 1)*
2. Product Profile and Medical Eligibility Criteria for CuT 380A *(Module 2: Session 1)*
3. Product Profile and Medical Eligibility Criteria for Jadelle^{R}, Zarin^{R} and Implanon^{R} *(Module 2: Session 2)*
4. Product Profile and Medical Eligibility Criteria for Jadelle^{R}, Zarin^{R} and Implanon^{R} *(Module 2: Session 2)*

5. Observations of Clinical Demonstration of IUD and Implant Insertions by Trainers/Preceptors
6. Using Learning Guides during Model and Clinical Practice *(Module 3)*
7. Brief Reproductive Anatomy, Physiology of the Female Menstrual Cycle and the Concept of Safe Fertile Period
8. IUD Insertion Techniques/Practice on Arm Models *(Module 4: Session 1)*
9. Sexually Transmitted Infections/Pelvic Inflammatory Disease: Prevention and Treatment.
10. Syndromic Approach to STI/PID Diagnosis & Management
11. Implant Insertion Techniques and Model Practice *(Module 4: Session 2)*
12. Demonstration and Clinical Practice *(Module 5)*
13. Introduction to Counseling *(Module 6: Session 1)*
14. The Balanced Counseling Strategy Plus *(Module 6: Session 2)*
15. Medical Emergency Management
16. Implant Removal Techniques *(Module 4: Session 3)*
17. Demonstration and Clinical Practice *(Module 5)*
18. Reflections from Clinical Practice Sessions
19. IUD Removal Techniques *(Module 4: Session 4)*
20. Management of Complications arising from Use of IUDs *(Module 7: Session 1)*
21. Management of Complications arising from Use Implants *(Module 7: Session 2)*
22. Infection Prevention Practices: Hand washing and Gloving *(Module 8: Session 1)*
23. Infection Prevention Practices: Disinfection and Sterilization *(Module 8: Session 2)*
24. Infection Prevention Practices: Disposal of Sharps and Wastes *(Module 8: Session 3)*
25. Infection Prevention Practices: *Demonstration of MSN Standards*
26. Record Keeping and Management Information System (MIS) *(Module 9: Session1)*
27. Contraceptive Logistics Management System (MIS) *(Module 9: Session 2)*
28. Clinic Facilities and Requirements *(Module 10: Session 1)*
29. Personnel Management *(Module 10: Session 2)*- Ensuring & Assuring Absence of Pregnancy Before Commencing or Starting Contraception; Ideal Time to Commence Contraception; Role of Pregnancy Test.
30. Demonstration and Clinical Practice *(Module 5)*

2. CERTIFICATE IN FETAL MONITORING METHODS

This is a minimum of 40-hour certificate course made up of 20hours of lectures and 20hours of practical sessions and demonstrations. The course content includes basic fetal monitoring techniques like cardiotocography, fetal kick chart and basic fetal ultrasound scan.
There shall be 23 hours of lectures and 22 hours of practicum making a total of 45 hours.

LECTURES:
The lectures shall include the topics listed below and each shall last for ONE hour

1. Importance of feto-maternal monitoring: antenatal and intrapartum
2. High risk indicators in pregnancy
3. Principles of fetal oxygenation in pregnancy and labour
4. Dating methods in pregnancy
5. Fetal distress: causes
6. Fetal distress: management principles
7. Overview of fetal monitoring
8. Screening for fetal anomalies
9. Prenatal diagnosis
10. Intrauterine growth restriction
11. Metabolic diseases in pregnancy
12. Fetal monitoring methods: history
13. Fetal monitoring methods: physical examination
14. Fetal monitoring methods: basic investigations
15. Fetal monitoring methods: fetal kick chart
16. Fetal monitoring methods: basic ultrasound scan
17. Fetal monitoring methods: advanced ultrasound scan
18. Fetal monitoring methods: cardiotocography
19. Interpretation and management of Cardiotocographic findings
20. Fetal acid base monitoring
21. Threatened preterm pregnancy and preterm birth
22. Neonatal resuscitation
23. Examination of the newborn

PRACTICUM
There shall be practicum of 22 hours in the various thematic areas of care.

Labour ward	10 hours
Labour ward theatre	4 hours
Obstetric ultrasound	4 hours

Cardiotocography 4 hours

3. CERTIFICATE IN PREVENTION OF MATERNAL MORTALITY

This is a minimum of 40-hour certificate course made up entirely of lectures. The course content includes updates on the main causes of maternal mortality like, Eclampsia, Pre-eclampsia, Abortion, puerperal sepsis, post partum haemorrhage and obstructed labour. There shall be lectures for a period not less than 24 hours and practicum of at least 26 hours in the various thematic areas of obstetric care.

LECTURES

1. Introduction to the concepts of maternal mortality, morbidity and near miss
2. Introduction to major contributors to maternal mortality
3. Concept and practice of shared care in obstetrics
4. Hypertensive diseases in pregnancy including preeclampsia and eclampsia
5. Abortion, complications and post abortion care ;
6. Manual Vacuum Aspiration: Uses, Contra-indication and Complications
7. Reproductive Health, Concept and Components; Women's Sexual and Reproductive Rights
8. Structured lectures on Puerperal sepsis, causes and management
9. Structured lectures on obstetric haemorrhage
10. The high risk obstetric patient and management
11. The concept of delays in maternal mortality
12. Concept of difficult labour, diagnosis and management
13. Interventions to reduce maternal mortality and morbidity; antenatal care
14. Interventions to reduce maternal mortality and morbidity- emergency obstetric care
15. Interventions to reduce maternal mortality and morbidity; the skill birth attendant in labor
16. HIV and co-infections in obstetrics
17. Immunization in pregnancy
18. Management of pregnancy and labour in a women with previous cesarean section
19. Induction of labour, Augmentation and stimulation of labour
20. The partograph as a tool in labour management and referrals
21. Instrumental deliveries indications and contraindications
22. The Millennium Development Goals (MDGs) and the Post MDG strategies for prevention of maternal mortality

23. Concept of Maternal Death Review/ Maternal Death Audit
24. Referral linkages in Obstetric care; plugging the gaps
25. Community insurance.

PRACTICUM

There shall be practicum of 26 hours in the various thematic areas of obstetric care.

Labour ward	10 hours
Labour ward theatre	4 hours
Obstetric ultrasound	4 hours
Cardiotocography	4 hours
Autopsy	4 hours

4. CERTIFICATE IN CERVICAL CANCER PREVENTION

This is a minimum of 40-hour certificate course made up of 30hours of lectures and 10hours of Clinical sessions.

Course Objective

The Course Objective focuses on the Primary and Secondary Prevention of Cervical Cancer and Clinical methods.

Content of the Lectures

This includes Anatomy of the Cervix; Epidemiology of Human Pappiloma Virus and Cervical Cancer; Lifecycle of Human Pappiloma Virus and Aetiology of Cervical Cancer, Cervical Cancer: Clinical Presentation and Management; Overview of Cervical Cancer Prevention, HPV Vaccines and Prevention of Cervical Cancer, Screening for Cervical Cancer (Cytology and aided Visual Inspection of the Cervix), Management of Abnormal Cervical Smear: Colposcopic Evaluation of the Cervix; Management of Premalignant Lesions of the Cervix: Ablative Techniques; Management of Premalignant Lesions of the Cervix: Excisional Techniques. Strategies for early detection including seromarkers in and management of other gynaecological cancers; such as vulval and ovarian cancers shall be part of this course.

Content of the Clinical Sessions

Introduction to Colposcopy; Colposcopic valuation of Premalignant Lesions of the Cervix; Treatment of Premalignant Disease of the Cervix (Ablative Techniques); Treatment of Premalignant Disease of the Cervix (Excisional

Techniques). The role of Visual Inspection using Acetic Acid (VIA) and Lugos iodine in the detection and management premalignant lesions of the cervix

5. CERTIFICATE IN UPDATE IN INFERTILITY

This is a 40-hour certificate course made up entirely of lectures. The course content includes current updates in the prevention, diagnosis and management of infertility.

ACADEMIC STAFF LISTSerial No.	**Resource Persons**	**Qualifications**	**Status**	**Department / Institutions/ Area of Specialization**
Internal (Department of Obstetrics and Gynaecology, University of Benin, Benin City)				
1.	Prof. E.E. Okpere	MBBS, FRCOG, FMCOG,	Professor	Maternal Fetal Medicine

		FWACS, FICS, D. Sc (Hons)		
2.	Prof. A.A.E. Orhue	MBBS, FRCOG, FMCOG, FWACS, FICS	Professor	Endocrinology and Infertility
3.	Prof. F.E. Okonofua	B.Sc, MB.CHB, FRCOG, FMCOG, FWACS, FICS , PhD, FAS	Professor	Oncology, Urogynaecology and Reproductive Health
4.	Prof. (Mrs.) A.O. Aisien	MBBS, FMCOG, FICS	Professor	Fertility Counseling and Management
5.	Prof. E.P. Gharoro	MBBS, FWACS , FMCOG, FICS	Professor	Oncology, Urogynaecology
6.	Prof. A.B.A. Ande	B.Sc (Hons), MB.CHB, FWACS, FICS, MPH	Professor	Maternal Fetal Medicine
7.	Prof. M.E. Aziken	MBBS, FWACS , FMCOG, MPH, D.MAS, Cert Sonography	Professor	Endocrinology and Infertility
8.	Prof. J.U.E. Onakewhor	MBBS, M. Sc, MPH, FWACS , FICS	Professor	Maternal- Fetal Medicine
9.	Dr. A.E. Ehigiegba	MBBS, MRCOG, FWACS	Associate Professor	Fertility Counseling and Management
10.	Dr. C.A. Okonkwo	MBBS, FMCOG,	Associate Professor	Oncology, Urogynaecology

		FICS		
11.	Dr. (Mrs.) P. A. Osemwenkhai	MBBS, FWACS , FICS, D.MAS, Cert Sonography	Senior Lecturer	Endocrinology and Infertility
12.	Dr. J.A. Osaikhuwuomwan	MBBS, FWACS, FMCOG	Senior Lecturer	Endocrinology and Infertility
13.	Dr. E. Enabudoso	MBBS, FMCOG, FWACS, MPH, Cert Fetal Med.	Lecturer 1	Maternal- Fetal Medicine
Staff Outside the Department Obstetrics and Gynaecology but in School of Medicine				
14.	Prof. (Mrs.) O.H. Okojie	MBBS, FMCPH, FWACP	Professor	Department of Community Health
15.	Prof. (Mrs.) A.O. Isah	MBBS, M. Sc, FMCPH, FWACP	Professor	Department of Community Health
16.	Prof. (Mrs.) A.N. Ofili	MBBS, FWACP, FMCP	Professor	Department of Community Health
17.	Dr. O. Adeleye	MBBS, MHPM, MPH, M.Sc, FWACP	Associate Professor	Department of Community Health
18.	Dr. J. Chiwuzie	MBBS, MPH, FWACP	Associate Professor	Department of Community Health
19.	Prof. M.N. Okobia	MBBS, FWACS, PhD	Professor	Department of Surgery
20.	Prof. M. Momoh	MBBS, FWACS	Professor	Department of Surgery
21.	Prof. V.I Iyawe	MBBS, PhD	Professor	Department of Physiology
22.	Prof. M.I. Ebowonyi	B.SC, PhD	Professor	Department of Physiology
23.	Dr. F.O. Agoreyo	BDS, M,Sc,	Senior	Department of

			Lecturer	Physiology
24.	Prof. Baxter Grillo	MBBS, M.S, PhD	Professor	Department of Anatomy
25.	Dr. C.L. Sakpa	MBBS, PhD	Lecturer 1	Department of Anatomy
26.	Dr. J.E. Atamah	MBBS, M.Sc,	Lecturer 1	Department of Anatomy
Staff Outside the College of Medical Sciences but in the University of Benin, Benin City				
27.	Prof. C.F. Okolocha	B,Sc, M. Sc, PhD	Professor	Department of Sociology & Anthropology
28.	Prof. Omozefe	PhD	Professor	Department of Gender Studies
29.	Prof. (Mrs.) R.U. Obi	Phd	Professor	Department of Sociology & Anthropology
30.	Prof. (Mrs.) K. Eghafona	PhD	Professor	Department of Sociology & Anthropology
31.	Prof. (Mrs.) G.N. Vincent-Osaghae	B. Sc, M. Sc, PhD	Professor	Department of Sociology & Anthropology- Medical Sociology
32.	Dr. Bar. (Mrs.) Aniekwu	LLM, PhD , Dip (Intl Human Rights)	Associate Professor	Department of Public Health Law
33.	Bar. (Mrs.) Onuoha	LLM, PhD	Associate Professor	Department of Private and Property Law
34.	Prof. Anthony Ogbeibu	PhD	Professor	Department of Environmental Biology, University of Benin
35.	Prof. S.U. Ogbonmwan	B.Sc, M. Sc, DIC, PhD	Professor	Department of Statistics/ Mathematics/Computer Studies
36.	Prof. S.E. Omosigho	B. Sc, M.Sc, MBA, PhD	Professor	Department of Statistics/

				Mathematics/Computer Studies
37.	Prof. Osa Osemwota	PhD	Professor	Department of Health Planning and Management
38.	Prof. (Mrs.) O. Okoro	PhD	Professor	Department of Education
39.	Dr. O.O. Omokhudu	PhD	Professor	Department of Accounting
Externals (National)				
40.	Prof. I.F. Adewole	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
41.	Prof. A. Oladokun	M.BBS, FWACS, FMCOG	Professor	Department of Obstetrics and gynaecology, University of Ibadan
42.	Dr. A. Fawole	M.BBS, FWACS, FMCOG	Senior Lecturer	Department of Obstetrics and gynaecology, University of Ibadan
External (Regional International)				
43.	Professor Richard Adanu	MBBS, FWACS, MPH	Professor	Department of Obstetrics and Gynecology, University of Ghana
44.	Prof. Rene Xanvier Rerrin	MD. PG Fellowship (O&G)	Professor	Department of Obstetrics and Gynaecology, Dabomey Calavi University, Cotonou
45.	Prof. Lut Geerts	B.Sc, MRCOG	Professor	Stallenbosch University, South Africa
	External (Non-Regional International)			
46.	Prof Ana Langer	PhD	Professor	Harvard School of Public Health,

				Boston, USA
47.	Emeritus Prof. Rebecca Cooke	C.M, J.D., F.R.S.C	Professor	Reproductive Health Law program, University of Toronto
48.	Dr. Man Charurat,	PhD	Associate Professor	Institute of Human Virology, University of Maryland (IHV-UMB), Baltimore, USA Epidemiologist
49.	Prof. A. Odibo	MBBS, MD, MSE	Professor	Department of Obstetrics and Gynaecology, Washington University School of Medicine
50.	Prof. Jeremy Shiffman,	PhD	Professor	Department of Public Health, School of Medicine, Washington University, USA
51.	Prof. Malcolm Potts	PhD; FRCOG	Professor	University of California
52.	Prof. Staffan Bergstrom	FRCOG; PhD	Professor	Department of Obstetrics and Gynaecology University of Stockholm, Sweden
53.	Prof Andrzej Kulczycki	MD, PhD	Professor	University of Alabama at Birmingham, USA
54.	Prof Julia Hussein,	PhD; FRCOG	Professor	University of Aberdeen, Scotland , UK