

**INSTITUTE OF MATERNAL AND CHILD HEALTH
COLLEGE OF MEDICINE
UNIVERSITY OF NIGERIA, ITUKU-OZALLA**

**REVISED COURSE CODES
For**

**M.Sc. and PhD in TROPICAL PAEDIATRICS
And
M.Sc and PhD in HUMAN REPRODUCTION AND
WOMEN HEALTH**

DECEMBER, 2018

REVISED COURSE CODES FOR THE APPROVED M.SC AND PHD DEGREES OF INSTITUTE OF MATERNAL AND CHILD HEALTH COLLEGE OF MEDICINE, UNIVERSITY OF NIGERIA, ITUKU-OZALLA

Approved Programmes:

- 1) M.Sc and PhD in Tropical Paediatrics**
- 2) M.Sc and PhD in Human Reproduction & Women Health**

NAMES OF SUPERVISORS (TROPICAL PAEDIATRICS)

1. Prof Emodi
2. Prof Obu
3. Prof Ojinnaka
4. Prof Obidike
5. Prof Ikefuna
6. Prof TagboOguonu

NAMES OF SUPERVISORS HUMAN REPRODUCTION AND WOMEN HEALTH

1. Prof Obi
2. Prof Ezegwui
3. Prof Dim
4. Prof Anibue
5. Dr.Nkwo
6. Prof Iyoke
7. Dr Ezeugwu
8. Dr asimadu
9. Dr.Chigbu

PHILOSOPHY OF THE PROGRAM

To provide a comprehensive postgraduate course of studies that enables medical doctors to upgrade their knowledge of tropical paediatrics, Human reproduction and basic medical sciences. The course will also facilitate acquisition of skills required for the conduct of research in relevant basic and clinical medical science relevant to the field of tropical paediatrics.

This course of study does not in any way confer on the graduate any specialist status since it does not include the teaching of practical clinical skills in any areas of Paediatrics and Human reproduction.

OBJECTIVES

At the end of the program, candidates should have developed the following competencies

- Ability to identify, assemble and critically analyse scientific literature related to human reproduction and understand the strengths and weaknesses of the research in the field.
- Ability to articulate subsequent researchable hypotheses and develop research questions and approaches to answering these questions based on significance of the issue and identification of gaps in knowledge.
- Conceive a research design and conduct rigorous research in the area of interest in Tropical Paediatrics and Human reproduction and women health in a way that would allow the hypotheses to be aptly tested.
- Select, apply and interpret analytic methods appropriate for qualitative and quantitative research as required for the candidate.
- Explain and apply the principles of research ethics to research.
- Effectively communicate and disseminate research findings through refereed publishable manuscripts, policy briefs and scientific presentations.

Support the teaching of a course and other instructional activities in the student's discipline in order to develop skills in teaching, alongside research responsibilities.

SCOPE OF THE PROGRAM

The program will emphasize active, student-directed learning, problem solving, and the acquisition of skills essential to the practice, teaching and research in Paediatrics and Human reproduction and woman health especially in the tropics.

ENTRY REQUIREMENTS FOR THE M.SC. TROPICAL PAEDIATRICS

- All candidates must fulfill the university minimum requirement as stipulated by the university programmes and the university.
- Candidates with MB, BS from recognized university.
- All candidates must have passed the Part I fellowship examination in paediatrics or its equivalents from recognized postgraduate medical colleges.

EMPLOYMENT OPPORTUNITIES:

Graduates are expected to have developed the necessary competencies to function effectively as teachers, researchers, managers and policy makers in reproductive sciences in general and women's health in particular.

Duration:

The programme is essentially designed (for obvious reasons) for Post-Part 1 resident doctors who are currently in training in the various accredited training institutions. Thus, should run as part time program.

- (a) The Master's Degree program (*Part-time M.Sc. Tropical Paediatrics*) should run for a minimum of 4 semesters and maximum of 8 semesters.
- b) Ph.D. Program (*Part time PhD Tropical Paediatrics*) should run for a minimum of 6 semesters and a maximum of 10 semesters.

- **Requirements for graduation**

- a) Master's degree (*M.Sc. Tropical Paediatrics*) shall require a minimum of 34 units for graduation. There should be a 6 units' project (6 units). The remaining 28 units should include a Faculty course of 3 units on ICT and Research Methodology, and 3 units for a seminar presented from the Master's Project Report.
- b) PhD (*PhD Tropical Paediatrics*): A minimum workload of 48 credit units of which 12 credit units are for the thesis, 30 credit units for the Masters programme/coursework and 6 credit units for seminars.

A) M.Sc in Tropical Paediatrics

Mode of study: Course work and Project

Duration of Programme: As in the approved curriculum

Areas of specialization

There is no area of specialization

Stress Areas

Growth / Development, Epidemiology, and ICT	0
Biostatistics, and Research Methodology	1
Medical Genetics	2
Bioethics, Legal Issues and Communication in Health	3
Fieldwork and Specialties	4
Seminar	6
Project	9

Code, Course Title, No. of Units

First year: First Semester

PED 701: Epidemiology of Tropical Diseases in Children, Health Management and Policy (2 units)

PED 711: Basic Biostatistics in Tropical Paediatrics (2 units)

PED 721: Genetics, Molecular and Cellular Biology of diseases and Dymorphology in children (2 units)

PED 731: Communication in Medicine (2 units)

PGC 603: ICT & Priority Advanced Research Methodology (3 units)

First year: Second Semester

PED 702: Normal Growth and Development in Children (3 units)

PED 712: Research Methodology in Tropical Paediatrics (3units)

PED 760: Seminar Topics and Reviews in Tropical Paediatrics (2 units)

Second year: First Semester

PED 741: Fieldwork in Community Paediatrics (2 units)

PED 735: Bioethics and Medico-legal issues in Paediatrics Practice (2 units)

PED 743: Specialized Paediatrics in the Tropics (4 units)

Second year: Second Semester

PED 762: Seminar (3units)

PED 792: Project Report (6 units)

Total Credit Units (36 units)

COURSE DESCRIPTIONS

PED 701: Epidemiology of Tropical Diseases in Children, Health Management and Policy:

Historical landmarks in epidemiology. The ecological approach to health and disease in children. Epidemiological studies I: Observational studies. Epidemiological studies II: experimental studies. Principles and applications of Health Management and Policy. Nature and scope of Public Policy.

PED 711: Basic Biostatistics in Tropical Paediatrics

Role of statistics in medicine, Population and variables, sample size calculations, Descriptive statistics, Hypothesis testing, Statistical estimations and inferences.

PED 721: Genetics, Molecular and Cellular Biology of diseases and Dymorphology in Children

Single mutant genes. Clinical principled in genetic disorders. Normal and abnormal Karyotypes.

PED 731: Communication in Medicine

Communication theories, principles and processes. Strategies applied in mass communication, interpersonal and organizational, Communication for health promotion and prevention of diseases.

PGC 603 ICT & Priority Advanced Research Methodology

General introduction to computers: Computer types, digital, analogue, hybrid; general review of computer applications in medicine.

Note: All Masters Students should pass this Faculty course on ICT and Priority Advanced Methodology or Technology for development of research. This course shall also include a Workshop to be organized by the School of Postgraduate Studies (SPGS) with a Certificate of Participation without which the result is incomplete. The Faculty returns the full grade while the SPGS issues the Certificate of Participation.

PED 702: Normal Growth & Development in Children

Foetal growth and development. Growth and development of the premature child.

PED 712: Research Methodology in Tropical Paediatrics

Definition of research. General and specific purposes of research. Study designs, sampling and sampling methods, informed consenting, responsible conduct of research, guidelines for reporting research in health. Referencing style, Introduction to qualitative study in health

PED 760: Seminar Topics and Reviews in Tropical Paediatrics

Student shall carryout an in-depth review of a topical subject in child health relevant to the tropics. This shall be submitted using format approved by the Institute and presented using PowerPoint to a panel of academics in the Child Unit.

PED 741: Fieldwork in Community Paediatrics

Students (clinicians) are posted to accessible partner government primary or secondary health facilities in Enugu state (approved by IMCH) render clinical services, acquaint themselves with special health problems of the patients / communities and proffer solutions, as well as engage in research where there is need.

The clinical service shall be at no cost to the health facility. Each student shall submit a report (to the course leader), and make presentations on his/her experiences at the field to the IMCH UNN, as part of the course grading.

PED 735: Bioethics and Medico-legal issues in Paediatrics Practice

Traditional knowledge, attitude and practices in relation to childhood diseases. Current clinical challenges in tropical Paediatrics and ethical issues. Legal issues in Tropical paediatrics. Biotechnology and Nanotechnology for developing world. Human cloning and Genetic screening. Principles of Bioethics especially related to child health. Ethics in conduct of biomedical research.

PED 743: Specialized Paediatrics in the Tropics

- Paediatrics Gastroenterology: Development and function for the GIT.
- Paediatrics Respiratology: Diagnostic procedure in pulmonary medicine.
- Paediatrics Cardiology
- Neonatology & Perinatal Medicine: Perinatal care in developing countries.
- Paediatrics Endocrinology:
- Paediatrics Haematology: Epidemiology of blood diseases in children.
- Paediatrics Oncology: Symptoms and signs in oncology.
- Paediatrics Nephrology: Symptoms and signs in Paediatric nephrology.
- Paediatrics Neurology: CSF Pathways and the blood/brain barrier.
- Clinical Procedures in Paediatrics:
- Ambulatory Paediatrics: The Concept of Primary Health Care as it relates to children. Organizing out-patient healthcare services for children.
- Paediatrics Infectious: Immunity, Infectivity and immunization.
- Paediatrics Nutrition: Nutritional needs of healthy infants and children.
- Adolescent Medicine: Evaluation of Adolescent. Sex differences, Mental and psychosocial changes, Sex maturity ratings.

PED 762: Seminar

Each student is required to prepare and deliver a seminar derived from Masters Project Proposal. The Project title must be presented and approved by the Child Unit of the IMCH, using the format approved by the Institute, before the student is qualified to prepare this seminar.

PED 790: Project Report (6 units)

Each eligible student shall carry out an approved research project in an area related to Tropical Paediatrics under the guidance of one or two appointed supervisors.

B) PhD in Tropical Paediatrics

Mode of Study: Course work and thesis

Duration of Programme: As in the approved curriculum

Areas of specialization: This will be determined by the area in which a candidate chooses to carry out his/her Thesis work. In other words each candidate shall choose his/her Thesis from any of these areas in Tropical Paediatrics.

1. Infectious diseases
2. Hematology
3. Oncology
4. Nephrology
5. Neonatology
6. Adolescent medicine

Stress areas

Implementation / monitoring, Grant writing	0
Biostatistics and research methodology	1
Critical appraisal	2
Seminars	6
Thesis	9

Code, Course Title, No. of Units

First year: First Semester

PED 801: Implementation and Monitoring of Health Insurance (2 Units)

PED 813: Advances in Biostatistics and Research Methodology (3 Units)

PGC 701: Synopsis and Grant writing (3 Units)

First Year: Second Semester

PED 822: Critical Appraisal in Tropical Paediatrics I (3 Units)

PED 824: Critical Appraisal in Tropical Paediatrics II (3 Units)

Second year & Third year

PED 861: Seminar I (3 Units)

PED 862: Seminar II (3 Units)

PED 890: Thesis (12 Units)

TOTAL CREDIT UNITS (32 Units)

COURSE DESCRIPTIONS

PED 801: Implementation and Monitoring of Health Insurance

Health Coverage, keys to Understanding Health Coverage and Health Coverage Models.

PED 813: Advanced Biostatistics and Research Methodology

Computers in medical practice and research. Administrative use in national health management; use in data basing the national health statistical system. Review of Basic biostatistics and sample size calculation, Correlation and Regression analysis. Advanced health research design, reporting, and review of articles.

PGC 701: Synopsis and Grant writing

Identification of types and nature of grants and grant writing; searching for grants application call on the internet. Determining appropriate strategy for each grant application. Study of various grant application structures; and contents and writing of concept notes, detailed project description, budgeting and budget defence. Synopsis writing – steps and errors, supervisor / student's relationship in synopsis and thesis writing, mock synopsis writing. All Registered PhD Student must attend a solution based interactive workshop to be organized by the SPGS.

PED 822 and 824: Critical Appraisal in Tropical Paediatrics I and II

Clinical questions, methodology, checklists, applicability, critical appraisal in practice, results.

PED 861 & 862: Seminar I and II

Students are required to prepare and deliver seminar presented from the PhD Project following postgraduate school guideline.

PED 890: Thesis

Students are required to write PhD thesis guided by 1 or 2 appointed supervisors; and defend it appropriately.

C) M.Sc in Human Reproduction & Women Health

Mode of study: Course work and Project

Duration of Programme: As in the approved curriculum

Areas of Specialization

There is no area of specialization

Stress Areas

Basic sciences, and ICT	0
Biostatistics, Research Methodology	1
Medical Genetics	2
Medical Ethics, communication in Health	3
Maternal / Fetal Health	4
Reproductive Tract diseases	5
Seminar	6
Project	9

Code Course Title, No. of Units

First Year: First semester

OBG 701: Basic Sciences in Human Reproduction (3 Units)

OBG 713: Basic Biostatistics in Women Health (2 units)

OBG 721: Human Genetics (2 Units)

OBG 731: Communication skills in Medicine (2 units)

PGC 601: ICT & Priority Advanced Research Methodology (3 Units)

First Year: Second Semester

OBG 702: Reproductive Endocrinology / Assisted Reproduction (2 Units)

OBG 704: Embryology / Immunology in Human Reproduction (2 Units)

OBG 712: Research Methodology (2 Units)

OBG 722: Ethics / Legal Aspect of Human Reproduction (2 Units)

OBG 732: Reproductive Health/Fertility Regulation (2 Units)

Second Year: First Semester

OBG 741: Maternal and Fetal Health (2 Units)

OBG 751: Reproductive Tract Oncology (2 Units)

OBG 753: Reproductive Tract Infections (2 Units)

Second Year: Second Semester

OBG 762: Seminar (3 Units)

OBG 792: Research Project (6 Units)

TOTAL CREDIT UNITS (37 units)

COURSE DESCRIPTIONS

OBG 701: Basic Sciences in Human Reproduction:

Anatomy of the Male and Female Genital Tracts: Anatomy of the abdominal wall. The inguinal region. The Male and Female Genitalia.

The Menstrual Cycle: The normal Menstrual Cycle. The control of menstrual cycle, Steroid hormone action. The Puberty, Menopause and Climacteric.

OBG 713: Basic Biostatistics in Women Health

Role of statistics in medicine, Population and variables, sample size calculations, Descriptive statistics, Hypothesis testing, Statistical estimations and inferences, for Inferential statistics.

OBG 721: Human Genetics

The structure and behaviour of DNA, RNA Replication. Mutations, Gene Expression. Regulation of gene transcription. DNA Processing.

OBG 731: Communication Skills in Medicine

Communication theories, principles and processes. Strategies applied in mass communication, interpersonal and organizational, Communication for health promotion and prevention of diseases.

PGC 601: ICT & Priority Advanced Research Methodology

General introduction to computers: Computer types, digital, analogue, hybrid; general review of computer applications in medicine.

Note: All Masters Students should pass this Faculty course on ICT and Priority Advanced Methodology or Technology for development of research. This course shall also include a Workshop to be organized by the School of Postgraduate Studies (SPGS) with a Certificate of Participation without which the result is incomplete. The Faculty returns the full grade while the SPGS issues the Certificate of Participation.

OBG 702: Reproductive Endocrinology/Assisted Reproduction Reproductive

Endocrinology of Pituitary. Adrenal cortex. Thyroid and parathyroid glands. Effects of hypophysectomy adrenalectomy, syndromes and disease of hyper/hypofunctioning of pituitary and adrenal cortex. Diabetes mellitus.

Reproductive Biology: An in-depth survey of male and female reproductive processes including neuro- endocrine pituitary and gonadal control mechanism.

Assisted reproduction: The Human Semen. Semen analysis. Artificial insemination. Fertilization by micro-insemination.

OBG 704: Embryology / Immunology of Human Reproduction

Embryology: Overview of embryonic development of humans.

Immunology: Concepts of Antigens. The Lymphoid System. Immune System. Immunoglobulins. Diagnostic Serological Tests related to human reproduction. Immunology of pregnancy.

OBG 712: Research Methodology

Definition of research. General and specific purposes of research. Study designs, sampling and sampling methods, informed consenting, responsible conduct of research, guidelines for reporting research in health. Referencing style, Introduction to qualitative study in health

OBG 722: Ethics / Legal Aspects of Human Reproduction

Principles of Bioethics as applied to Human Reproduction including Assisted Reproduction and surrogacy. Ethics in conduct of biomedical research. Legal aspects in Human Reproduction.

OBG 732: Reproductive Health / Fertility Regulation

Reproductive Health: Overview of Reproductive Health. Basic Principles of Health Status Assessment. Behavioural Factors and their effect on Reproductive Health. Safe Motherhood. Fertility Regulation: Population Dynamics and National development with special emphasis on Nigeria History of Contraception.

OBG741: Maternal and Fetal Health

Maternal health: Pregnancy, labour and puerperium; common maternal complications during these periods; maternal and perinatal mortalities. Fetal Health (Fetal medicine): Principles of Monitoring Maternal well-being. Drugs and Pregnancy. Biochemical and Biophysical Methods of fetal assessment.

OBG 751: Reproductive Tract Oncology

Molecular basis of Carcinogens. Carcinogenesis in the Female genital Tract. Influence of Genes and Environmental Factors on Carcinogenesis.

OBG 753: Reproductive Tract Infections

Overview of Reproductive Tract infections with emphasis on STIs including Zika Viruses. Environmental determinants of STIs.

OBG 762: Seminar

Each student is required to prepare and deliver a seminar derived from Masters Project Proposal. The Project title must be presented and approved by the Child Unit of the IMCH, using the format approved by the Institute, before the student is qualified to prepare this seminar.

OBG 792: Project Report

Each eligible student shall carry out an approved research project in an area related to Human Reproduction and Women Health, under the guidance of one or two appointed supervisors.

D) PhD in Human Reproduction and Women Health

Mode of Study: Course work and Thesis

Duration of Programme: As in the approved curriculum

Areas of Specialization

This will be determined by the area in which a candidate chooses to carry out his/her Thesis work. In other words candidates are expected to choose their Thesis from any of the following areas in Human Reproduction and Women Health.

Maternal Health

Fetal Medicine

Reproductive Oncology

Fertility Regulation

Infertility & Reproductive Endocrinology

Stress Areas

Research Grant Writing	0
Reproductive Science	1
Women Health	2
Seminar	6
Thesis	9

Code, Course Title, No. of Units

First Year: First Semester

OBG 811: Reproductive Science I 2

OBG 821: Women Health I 2

OBG 823: Women Health II 2

PGC 701: Research Grant Writing and Synopsis Writing 3

First Year: Second Semester

OBG 812: Reproductive Sciences II 2

OBG 824: Women Health III 2

OBG 826: Women Health IV 2

Second year & Third year

OBG 861 Seminar I 3

OBG 862 Seminar II 3

OBG 892 Thesis 12

TOTAL CREDIT UNITS 33 units

COURSE DESCRIPTIONS

OBG 811: Reproductive Science I

Basic Principles of Epidemiology of reproductive health, Qualitative and Quantitative Research Methodology.

OBG 821: Women Health I

Sexuality and women, Principles and use of imaging in female Reproductive health; sexually transmitted infections and HIV in women including PMTCT

OBG 823: Women Health II

High risk pregnancy, patients' referral system, maternal and child mortality epidemiology, and issues in developing economies

PGC 701: Research Grant Writing and Synopsis Writing:

Identification of types and nature of grant and grant writing; mining of grants application calls on the interest. Determining appropriate strategy for each grant application. Study of various grant application structures and contents and writing of concept notes, detailed project description, budgeting and budget defence. Synopsis writing – steps and errors, supervisor / student's relationship in synopsis and thesis writing, mock synopsis writing. All Registered PhD Student must attend a solution based interactive workshop to be organized by the School of Postgraduate Studies.

OBG 812: Reproductive Science II

Introduction to Good clinical practice; Responsible conduct of health Research including plagiarism.

OBG 824: Women Health III

Management of common clinical complications in obstetrics & gynecology: including abnormal uterine bleeding, unsafe abortion, pre-eclampsia/eclampsia, antepartum/postpartum hemorrhage, puerperal sepsis, etc.

OBG 826: Women Health IV

Special public health Topics in Women Health including menopausal health, and Sexual abuse, Domestic violence, Genital mutilation

OBG 861: Seminar I

As in the guideline of SPGS

OBG 862: Seminar II

As in the guideline of SPGS

OBG 892: Thesis

Students are required to write PhD thesis guided by 1 or 2 appointed supervisors; and defend it appropriately.