

UNIVERSITY OF NIGERIA, NSUKKA
SCHOOL OF POSTGRADUATE STUDIES

M.Sc, M.Sc/Ph.D AND Ph.D

PROGRAMMES FOR DEPARTMENT OF MEDICAL REHABILITATION

2017

UNIVERSITY OF NIGERIA, NSUKKA

M.Sc, M.Sc/Ph.D AND Ph.D PROGRAMMES OF THE DEPARTMENT OF MEDICAL REHABILITATION

LIST OF APPROVED POSTGRADUATE SUPERVISORS OF THE DEPARTMENT OF MEDICAL REHABILITATION, FHST, UNEC

Professors	Area of Specialisation
G.C. Okoye <i>MBB (Lagos), Ph.D (Stratclyde)</i>	Bio-Engineering
Senior Lecturers	
S.C. Ibeneme <i>BMR (PT), M.Sc, Ph.D (Nig.)</i>	Clinical Gait Analysis
A.O. Ezeukwu <i>BMR(PT), M.Sc (Ibadan), Ph.D (Benin)</i>	Orthopaedic/Sports Physiotherapy; Exercise Physiology
C.I. Ezema <i>BMR (PT), M.Sc, Ph.D (Nig.), PhD (EBSU)</i>	Neurological Physiotherapy; Exercise Physiology
Lecturer I	
U.A. Ezugwu <i>BMR (PT) M.Sc, Ph.D (Nig.)</i>	Orthopaedic/Sports Physiotherapy
C.N. Igwesi-Chidobe <i>BPT (Lagos), MPH (Nig) Ph.D (London)</i>	Public Health; Community Physiotherapy

1.1 PHILOSOPHY

The philosophy of the programme is to position the Postgraduate Physiotherapy programme to produce world-class, knowledgeable, competent and educated men and women with advanced skills for professional services to their environment. The Postgraduate Physiotherapy programme of the Department of Medical Rehabilitation is designed to develop in-depth knowledge and advanced research and clinical skills in an approved specialised area of physiotherapy (subject to the availability of sufficient supervisory expertise in that area).

1.2 SCOPE

The available Postgraduate Programmes in Physiotherapy include:

- i. M.Sc. (Physiotherapy)
- ii. M.Sc/Ph.D (Physiotherapy)
- iii. Ph.D. (Physiotherapy)

1.3 OBJECTIVES

The entire postgraduate programme is aimed to:

- (i) develop and maintain sound evidence-based knowledge in physiotherapy
- (ii) develop innovative thinking and problem-solving abilities
- (iii) develop proficiency in data collection and interpretation of results
- (iv) gain independence in research and scientific writing skills
- (v) investigate and utilise funding opportunities
- (vi) disseminate research findings, including publications in peer-reviewed international scientific journals and presentations at local and international conferences

1.4 EMPLOYMENT OPPORTUNITIES

Physiotherapists work in many places, including private practice, sports facilities, hospitals, schools and universities, public health organisations, community centres, aged-care facilities and workplaces. Some physiotherapists pursue a clinical career assessing and treating patients; others pursue a career in academia to undertake research to further the evidence base for assessing and treating patients and to teach physiotherapy students; others mix a clinical career with academia.

1.5 ADMISSION REQUIREMENTS: M.Sc, M.Sc/Ph.D AND Ph.D

A. Masters of Science (M.Sc) Degree:

Admission Requirements:

Candidates for admission into M.Sc (Physiotherapy) Programme must possess the following:

- i. A first degree in Physiotherapy with a minimum of second class lower division from a recognised University or an unclassified degree in Physiotherapy
- ii. A current registration with the Medical Rehabilitation Therapists Board of Nigeria.
- iii. A minimum of two years post-qualification working experience as a Physiotherapist in a recognized institution.

➤ Duration of the Programme:

Full-Time: A minimum of 3 semesters

A maximum of 5 semesters

Part-Time: A minimum of 4 semesters

A maximum of 6 semesters

B. Masters of Science/Doctor of Philosophy (MSc/Ph.D) Degree:

Admission Requirements:

- i. Candidates who hold the M.Sc. (Physiotherapy) degree or its equivalent but who obtained a GPA of less than 3.5 point on a 5 point scale.
- ii. Conversion from M.Sc/Ph.D to Ph.D shall be done in accordance with existing regulations of the postgraduate school of the University.
- iii. Candidate who hold a first degree in Physiotherapy but obtained an M.Sc in another field.
- iv. Must be currently registered with the Medical Rehabilitation Therapist Board of Nigeria

➤ **Duration of the Programme:**

Full-Time: A minimum of 8 semesters

A maximum of 12 semesters

Part-Time: A minimum of 10 semesters

A maximum of 14 semesters

C. Doctor of Philosophy (Ph.D) Degree:

Admission Requirements:

- i. Candidates who hold an M.Sc. (Physiotherapy) degree or its equivalent from an recognized institution but who obtained at least a GPA of 3.5 point on a 5 point scale
- ii. Candidates who hold an M.Phil degree in Physiotherapy but who obtained a GPA of at least a GPA of not less than 3.5 point on a 5 point scale.

- iii. Must be currently registered with the Medical Rehabilitation Therapist Board of Nigeria

➤ **Duration of the Programme:**

Full-Time: A minimum of 6 semesters

A maximum of 10 semesters

Part-Time: A minimum of 8 semesters

A maximum of 12 semesters

➤ **Requirements for Graduation:**

- i. Candidates must register as full time students. In special cases, Part-time registration may be allowed provided the facilities for the candidates work are adequate and supervision is effective throughout the period of registration.
- ii. M.Sc, M.Sc/Ph.D and Ph.D Physiotherapy programmes are made up of course work, seminars, advanced clinical physiotherapy practice, physiotherapy education research seminar and project report/thesis.

The areas of specialization include:

- i. Cardio-Pulmonary Physiotherapy
- ii. Neurological Physiotherapy
- iii. Musculoskeletal Physiotherapy
- iv. Exercise and Sports Physiotherapy
- v. Women's Health Physiotherapy
- vi. Paediatric Physiotherapy
- vii. Community Physiotherapy

1.6 NUMBERING OF STRESS AREAS

Clinical Practice	0
Foundational Course I	1
Foundational Course II	2
Specialty Course (Cardiopulmonary and Neurology)	3
Specialty Course (Musculoskeletal/Exercise/Sports)	4
Specialty Course (Women's Health and Paediatrics)	5

Specialty Course (Community Physiotherapy)	6
Research Methods/Biostatistics	7
Seminar	8
Project Report/Thesis	9

2.0 M.Sc Courses

First Semester Courses

A. Compulsory/General courses

FIRST SEMESTER

COURSE NO	TITLE	UNITS
PHT 601	Advanced Clinical Practice 1	3
PHT 611	Advanced Clinical Reasoning, Measurement And Instrumentation In Physiotherapy	3
PHT 613	Motor Control/Learning And Physical Performance In Health And Disease	2
PHT 615	Pain, Pain Syndromes & Palliative Care In Physiotherapy	2
PGC 601	ICT, Research Methodology And Biostatistics	3
	TOTAL	13 Units

B. Core Courses by Area of Specialization

COURSE NO	TITLE	UNITS
Cardiopulmonary Physiotherapy		
PHT 631	Advanced Cardiac and Respiratory Anatomy/Physiology	3
PHT 633	Clinical Electrocardiography	3
Neurological Physiotherapy		
PHT 635	Advanced Integrative and Clinical Neuro-Science	3
PHT 637	Cognitive and Behavioural Issues in Neuro-Rehabilitation	3
Musculoskeletal Physiotherapy		
PHT 641	Manipulative Therapy	3
PHT 643	Orthopaedic Physiotherapy Including Traumatology and	

	Rehabilitation	3
Exercise and Sports Physiotherapy		
PHT 645	Advanced Exercise And Sports Science	3
PHT 647	Clinical Exercise And Sports Injury	3
Women's Health Physiotherapy		
PHT 651	Pelvic Floor Muscle Rehabilitation	3
PHT 653	Women Through Life Stages	3
Paediatric Physiotherapy		
PHT 655	Paediatric Neuro-physiotherapy	3
PHT 657	Paediatric Musculoskeletal Physiotherapy	3
Community Physiotherapy		
PHT 665	Population Based Physiotherapy Practice	3
PHT 667	Health Promotion and Preventive Physiotherapy Services	3

Second Semester Courses

A. Compulsory/General Courses

SECOND SEMESTER

COURSE NO	TITLE	UNITS
PHT 602	Advanced Clinical Practice II	3
PHT 681	Seminar I	3
PHT 622	Principles of Sociology and Entrepreneurial Studies In Physiotherapy	3
PHT 672	Physiotherapy Research And Dissemination	3
TOTAL		12 Units

B. Core Courses by Area of Specialization

COURSE NO	TITLE	UNITS
Cardiopulmonary Physiotherapy		
PHT 632	Cardio-respiratory Disorders and Advanced Rehabilitation	3
PHT 634	Intensive Care Physiotherapy	3
Neurological Physiotherapy		
PHT 636	Infant Neuromotor Development, Disorders and Advanced Rehabilitation	3
PHT 638	Neurological Disorders and Advanced Rehabilitation (Upper and lower motor neuron lesion)	3
Musculoskeletal Physiotherapy		
PHT 642	Functional Clinical Anatomy And Diagnostics In Musculoskeletal Disorders	3
Exercise and Sports Physiotherapy		
PHT 646	Theories of Competitive Sports and Exercise Training	3
PHT 644	Advanced Clinical Biomechanics	3
Women's Health Physiotherapy		
PHT 652	Continenence and Women's Health	3
PHT 654	Maternal and Child Health	2
Paediatric Physiotherapy		
PHT 656	Paediatric Cardiorespiratory Physiotherapy	3
PHT 658	Children In Difficult Circumstances	2
PHT 654	Maternal and Child Health	2
Community Physiotherapy		
PHT 668	Community Based Rehabilitation	3

Third Semester Courses

THIRD SEMESTER

COURSE NO	TITLE	UNITS
PHT 683	Seminar II	3
PHT 690	Research Project	6
Total		9 Units

3.0 Ph.D Courses

First Year

FIRST SEMESTER

COURSE NO	TITLE	UNITS
PHT 771	Critical Analysis and Research	3
PHT773	Applied Quantitative Analysis in Physiotherapy Research	3
PHT 775	Applied Qualitative Analysis in Physiotherapy Research	3
Total		9 Units

SECOND SEMESTER

COURSE NO	TITLE	UNITS
PHT 712	Advanced Clinical Assessment and Diagnosis In Physiotherapy	3
PGC 701	Research Grant Writing and Synopsis Writing	3
Total		6 Units

SECOND YEAR

COURSE NO	TITLE	UNITS
PHT 781	Doctoral Seminar I	3
PHT 782	Doctoral Seminar II	3
Total		6 Units

THIRD YEAR

COURSE NO	TITLE	UNITS
PHT 783	Doctoral Seminar III	3
PHT 790	Doctoral Thesis	12
Total		15 Units

DESCRIPTION OF M.Sc COURSES

First Semester

PHT 601: Advanced Clinical Practice I

Rotational Clinical Practice through the major fields of practice in physiotherapy. Fields practice include Neurology, Cardio-pulmonary Orthopaedics, Sports, Paediatric and Community Physiotherapy (3 Credit Units).

PHT 611: Advanced Clinical Reasoning, Measurement and Instrumentation in Physiotherapy

Principles involved in Clinical Measurement and Evaluation and their application in practice of physiotherapy, review of measurement concepts and terminology. Measurements of muscle performance, range of motion and functional activities. Methods of measuring patient outcome for clinical and research purposes. Electronic fundamentals applied to measuring instruments and their basic components as used in Physiotherapy. Overview of biophysical instrumentation; Basic electronics and circuits; display and measuring devices; Electrodes, Transducers; amplifiers and filters (**3 credit units**).

PHT 613: Motor Control/learning and Physical Performance in Health and Disease

The nature of human motor actions. How efficient motor skills are developed and controlled, from both cognitive and dynamical systems approaches, and their classification and measurement. The integrated development of perception and action, how to design motor development programs. The integration of theory and practical work develops key competencies for teaching skill development. A theory and practical course on the attainment and maintenance of appropriate physical fitness level in healthy individuals and patients. Definitions and components of physical fitness, field and laboratory, applicability of various tests in health and disease. A review of activities for the purpose of health promotion and the analysis of various sports and recreational activities for their health promoting values (**3 credit units**).

PHT 615: Pain, Pain Syndromes and Palliative Care in Physiotherapy

An interdisciplinary approach to the management of pain disorders/syndromes aimed at encouraging professional collaboration. Pain experience of patients and the physiological, psychosocial, and environmental components of that experience, with an application of profession-specific theoretical frameworks to assess and manage pain and disability. Physiotherapy care of clients experiencing chronic illness and/or end of life. Understanding the "lived experience" of clients and families. Ethical issues related to advocacy, self-determination, and autonomy. Evidence-based practice is used to support appropriate focused assessments and management of care of clients experiencing concurrent illnesses/co-morbidities (**2 Credit units**)

PGC 601 ICT, Research Methodology and Biostatistics

In-depth research work aimed at acquiring full knowledge and presentations in scholarly writing of the concepts, issues, trends in the definition and development of statistics. Major steps in research selection of problem, Literature review, Design, Data collection, analysis and Interpretation, Conclusions. Study of various research designs, Historical, Case studies, Surveys, Descriptive, Cross Sectional, Experimental, etc. Analysis, Surveys and Synthesis of conceptual and philosophical foundations of statistics. Identification of research problems and development of research objectives and hypotheses. Method of project/dissertation writing. Application of appropriate advanced ICT tools relevant for data gathering, analysis and result presentation. Essentials of spreadsheets. Internet technology, Internet search engines, Statistical packages, Principles of Scientific Research. All registered Master's Degree students must attend a solution based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts **(3 Units)**

PHT 631: Advanced Cardiac and Respiratory Anatomy/Physiology

Lung structure and function: Ventilation - perfusion relationships. Respiratory Anatomy and physiology in usual environments. Tests of Pulmonary function. Cardiovascular Anatomy and physiology, including central control of blood pressure and flow regulation. An integrative approach toward how the cardiovascular system is coordinated with overall body function. Principles of exercise physiology integrated into the clinical setting, with emphasis on cardiovascular and pulmonary diseases. Exercise adaptations and examples of pathophysiology **(3 credit units)**.

PHT 633: Clinical Electrocardiography

Exploration of heart conduction, arrhythmia, and clinical significance of electrocardiography with an emphasis on clinical application. This course is designed to give the student a solid, basic overview of electrocardiography (ECG/EKG). Heart anatomy and physiology, exploration of physiology and pathophysiology of various rhythms of heart conduction. Sinus, atrial, junctional, and ventricular rhythms as well as heart blocks will be studied. Bundle branch blocks and hemiblocks, myocardial infarctions, electrolyte abnormalities and EKG's from other coronary and non-coronary conditions. Diagnostic role of EKG plays in a clinical setting **(3 credit units)**.

PHT 635: Advanced Integrative and Clinical Neuroscience

Aspects of the control nervous system in health and in disease: Sensory coding; reflex functions motor control; effect of drugs in the CNS; physiological aspects of memory. Applied Neuroscience and evolving role of Physiotherapy **(3 credit units)**.

PHT 637: Cognitive and Behavioural issues in Neuro-Rehabilitation

Psychological processes underpinning perception, attention, memory, and motor planning. An investigation of how these processes may be disrupted by a variety of neurological conditions. Subjective and behavioural aspects of neurological dysfunction are discussed in the context of rehabilitation **(3 credit units)**.

PHT 641: Manipulative Therapy

The principles, theory and application of advanced techniques of mobilization and manipulation on selected peripheral and spinal joint syndromes. Appraisal of the various management techniques and school of thought e.g Maitland, McKenzie, Cyriax etc **(3 credit units)**.

PHT 643: Orthopaedic Physiotherapy Including Traumatology and Rehabilitation

In advanced study of the causes, incidence pathology and clinical features of soft-tissue and skeletal disorders (Traumatic and Non-Traumatic) and the general principles of their physical management . Principles and techniques of physiotherapy related to prevention, correction and treatments of physical dysfunction resulting from sports injuries **(3 credit units)**.

PHT 645: Advanced Exercise and Sports Science

Integrated regulation of organ systems during exercise and sports in applied settings spanning chronic disease through elite sport will be examined. Mechanisms of adaptation, environmental stress, ergogenic aids, novel training approaches, limitations to exercise in healthy normal individuals, and well-trained and elite athletes, facilitating recovery, overtraining, and shortfalls in the exercise physiology knowledge base. Role of exercise in the prevention, diagnosis, prognosis and treatment of chronic disease **(3 credit units)**.

PHT 647: Clinical Exercise and Sports Injury

Role of exercise in the management of sports injuries and chronic health conditions. For sports injuries, prevention, acute management and optimal rehabilitation will be addressed. For chronic

disease, the pathophysiological process, adaptations to regular exercise and influence on the metabolic, hormonal, muscular and neurological sequelae of disease. Detraining in the setting of illness and injury and impacts on physiological and metabolic responses leading to deconditioning (**3 credit units**).

PHT 651: Pelvic Floor Muscle Rehabilitation

An advanced approach to the study of structure, function and dysfunction of the pelvic floor and application of exercise physiology, motor control theory, and pain mechanisms to the pelvic floor and pelvic floor muscle rehabilitation. Assessment of the pelvic floor using interview, observation, palpation, manometry, real-time ultrasound, and electromyography. Physiotherapy management of bladder and bowel dysfunction, pelvic organ prolapse, sexual dysfunction, and pelvic pain and dysfunction using education, exercise, and electrophysical agents. Measurement of outcomes of pelvic floor muscle rehabilitation (**3 credit units**).

PHT 653: Women through Life Stages

Advanced study of female growth and development and the health conditions that are unique, more common, more serious, or require different interventions in women. Development of advanced skills in clinical reasoning and evidenced based practice for the assessment and management of women's health including: education, exercise, manual therapy, electrophysical therapy, and behavioural modification for the optimisation of perinatal, bone, and sexual health; prevention and management of the sequelae of breast and pelvic oncology. Interprofessional promotion of women's health (**3 credit units**).

PHT 655: Paediatric NeuroPhysiotherapy

Theoretical understanding and some practical experience in the specialist physiotherapy management of Paediatric Neurological and neuromuscular conditions (including chronic, acute, congenital and rare disorders). Standardised assessments of movement and function in children with neurological and neuromuscular disorders (**3 credit units**).

PHT 657: Paediatric Musculoskeletal Physiotherapy

Theoretical understanding and some practical experience in the specialist physiotherapy management of paediatric musculoskeletal conditions (including chronic, acute, congenital and rare disorders). Assessment of function, joints, muscles, pain and gait throughout childhood (**3 credit units**).

PHT 665: Population Based Physiotherapy Practice

Scope of populationbased public health Physiotherapy process. Principles or “cornerstones” underlying the practice of publichealth Physiotherapy. Public health Physiotherapy interventions and the best practices associated with their successful implementation (**3 credit units**).

PHT 667: Health Promotion and Preventive Physiotherapy Services

Value of and barriers to disease prevention and health promotion (DP/HP), how to identify and use federal public health data sets, factors that influence personal health decisions, preventive interventions directed at individuals (clinical settings) and populations (community settings), strategies for using population healthprinciples to integrate DP/HP into routine clinical and public health practice, and theorganization of federal agencies that fund DP/HP activities. Emerging roles of Physiotherapy (**3 credit units**).

Second Semester Courses

PHT 602: Advanced Clinical Practice II

Rotational Clinical Practice through the student field/area of specialization. The course may involve clinical work experience off-campus in any geographical area where student may gain the necessary experience. Attendance/Presentation at workshop/seminar/certifications in the candidates area of specialty may form an integral aspect of the course as may be determined by the Departmental PG board. This will culminate in an assessment by the departmental experts (**3 credit units**).

PHT 681: Seminar I

A pre-field seminar based on the candidates area of research interest for the MSc (**3 credit units**).

PHT 622: Principles of Sociology and Entrepreneurial Studies in Physiotherapy

The course focuses on sociological concepts in the analysis of the causes and distribution of illness; health and medical orientation; patterns of utilization of health services; comparative analysis of health delivery system, analysis of provision and patronage of health and preventive services, medical professions and socialization of health professionals **(3 credit units)**.

PHT 672: Physiotherapy Research and Dissemination

Practical exercises in literature searching skills and referencing in long documents, critical evaluation of literature: including levels of evidence, systematic and narrative reviews. Academic writing skills: including structure and format of different academic documents and practical exercises in writing, reviewing and editing documents, dissemination of research work, formulating and answering clear clinical questions. Verbal presentation skills: including practical exercises using voice, body language and effective audiovisual aids. Clinical practice and research (different methods of outcome evaluation statistically and clinically important changes: p values, confidence intervals, numbers needed to treat) and the process of outcome measurement within the context of clinical practice and research. The research process in terms of process, planning and presentation **(3 credit units)**.

PHT 632: Cardio-Respiratory Disorders and Rehabilitation

Review of respiratory anatomy and physiology. Application of basic concepts and techniques in Physiotherapy involvement in health promotion and management of patients with acute and chronic pulmonary disorders. Application of basic concepts and techniques in physiotherapy involvement in health promotion and management of patients with acute, sub-acute and chronic heart (cardiac) and circulatory (vascular) disorders. **(3 credit units)**

PHT 634: Intensive Care Physiotherapy

An advanced study of the general principles of physical management of intensive or acute care cases. It will cover; Effects of Anaesthesia on the respiratory, circulatory, and musculoskeletal systems. Pre-operative management and complications **(3 credit units)**.

PHT 636: Infant Neuromotor Development and Disorder

Emphasis on the neuromotor development of the human fetus, neonate and infant. Damages and disorders of the neuromotor development and physiotherapy management and rehabilitation by conventional and special methods such as Bobath etc **(3 credit units)**.

PHT 638: Neurological Disorder and Rehabilitation (Upper And Lower Motor Neurone Lesions)

Cellular basis of clinically relevant perturbations to the nervous system. Particular reference will be made to the efficacy of rehabilitative interventions in lower motor neurons lesions. Degenerative changes following a peripheral nerve lesion (PNL) and regenerative processes. Techniques of assessment and Physiotherapy management of PNL and the place of orthotic appliances. Cellular basis of clinically relevant perturbation to the nervous system with particular reference to the efficacy of rehabilitative interventions in upper motor neurons lesions. **(3 credit units)**

PHT 642: Functional Clinical Anatomy and Diagnostics in Musculoskeletal Disorders

Structural and applied anatomy, and pathology of the vertebral column and peripheral regions, relevant to musculoskeletal physiotherapy. Anatomical adaptations with respect to function, the impact of pathology on function, responses to injury, healing and repair processes in musculoskeletal structures, and how these may be influenced by physical treatment. Pathology, clinical features and diagnostic methods related to disorders commonly presenting in musculoskeletal physiotherapy practice is also covered. **(3 credit units)**

PHT 644: Advanced Clinical Biomechanics

acquisition of kinematic, kinetic and electromyographic data, variable generation and analysis of biomechanical variables used to measure movement. The instrumentation and methodologies to acquire this data will allow a number of specific skilled movements to be analysed. The strengths and weaknesses and limitations of the methodologies will be evaluated **(3 credit units)**

PHT 646: Theories of Competitive Sports and Exercise Training

Critical study of motor ability, their development through various training methodologies the process of training periodization and planning.. Performance enhancement through mental skills training.Preparation for critical performances and approaches to dealing with not meeting expectations.Developing psychological resilience.Psychological burn-out.Coaching and the psychology of coaches. Problems of Women athletes/ adolescent athletes/ aging athletes & disabled athletes **(3 credit units)**

PHT 652: Continence and Women's Health

Advanced study of the development of the anatomy, physiology, and pathophysiology of micturition and defecation; bladder and bowel function and dysfunction in women(young, middle aged and elderly); and health promotion for the bladder and bowel. Development of physiotherapy clinical skills and clinical reasoning relevant to evidenced based and interprofessional practice in the assessment and physiotherapy management of incontinence and/or voiding, defecation and female sexual dysfunction **(3 credit units)**

PHT 654: Maternal and Child Health in developing Countries

Introduction to maternal and child health in developing countries; maternal morbidity and mortality; antenatal care; safe motherhood: essential obstetric care. Cultural and social considerations in maternal and child health programmes.Parenting and family planning. Child health: common conditions and their causes, interventions in child health. Nutritional issues in maternal and child health. Programme considerations in maternal and child health. **(2 credit units)**

PHT 656: Paediatric Cardiopulmonary Physiotherapy

Differences between adults and children, lung growth and development, cardiac embryology and development of the pulmonary circulation. Knowledge of paediatric cardiorespiratory physiotherapy in intensive care, which includes an understanding of mechanical ventilation and weaning from the ventilator, paediatric respiratory physiotherapy assessment including x-ray interpretation, an understanding of the use of manual techniques in intensive care. Develop and understanding of the role of respiratory physiotherapy in neonates.Asymptomatic patient and the

use of airway clearance devices. Respiratory management of patients with neuromuscular disease, which includes non-invasive ventilation and long-term ventilation (**3 credit units**)

PHT 658: Children in difficult Circumstances

Children in difficult circumstances include street children, children exploited through labour, children exposed to violence and sexual abuse, disabled children, orphans and children with HIV. Problems facing these children both in the Nigeria and around the world. It examines the underlying causes and explores some of the potential solutions (**2 credit units**)

PHT 668: Community Based Rehabilitation

Global perspectives of community based rehabilitation (CBR) as a strategy for equalization of opportunities, social inclusion and participation of persons with disabilities. It prepares students to design, implement and evaluate CBR programs for and with persons with disabilities internationally by using a gender sensitive and human rights based approach. Students will examine basic CBR concepts and frameworks, health and disability policy, global partnerships, education and training strategies, the World Health Organization CBR Guidelines as well as their application in a variety of CBR programs globally (**3 credit units**)

PHT 683: Seminar II

A detailed written pre-synopsis presentation of the result of the candidate's MSc research (**3 credit units**)

PHT 690: Research Project

Work on a research project under the supervision of a faculty member. Outcome of work must add to knowledge. Prior approval of the student's supervisor is required. Also prior presentation of a departmental seminar on the topic is required (**6 credit units**).

Description of Ph.D Course

PHT 771: Critical Analysis and Research

Demonstrate the ability to critically evaluate scientific literature and apply the scientific method in Physiotherapy (**3 credit units**).

PHT 773: Applied Quantitative Analysis in Physiotherapy Research

Statistical inference, simple regression, multiple regression, regression assumptions, regression with categorical predictors, model selection methods polynomial regression, and model validation as applied to Physiotherapy research (**3 credit units**).

PHT 775: Applied Qualitative Methods in Physiotherapy Research

This course constructs a conceptual and methodological bridge between the understandings of qualitative research developed in Qualitative Methods I and more advanced study of theories, designs, and methods. The focus is on theory, approaches to data analysis, and interpretation (**3 credit units**).

PHT 712: Advanced Clinical Assessment and Diagnosis in Physiotherapy

Demonstrate an understanding of physiotherapy assessment and diagnosis in line with best international standards. Culminates in presentation of finding at professional conferences or publication in peer review journals (**3 credit units**).

PGC 701 Research Grant Writing and Synopsis Writing

Identification of types and nature of grants and grant writing: mining of grants application calls 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 defense. Study of sample grant writings in various forms and writing of mock research and other grants. Identification of University of Nigeria synopsis structure and requirements (Introduction, Methodology and Results). Determining the content of each sub-unit of the synopsis. Steps in writing the synopsis from the Dissertation/Thesis document. Structural and Language issues. Common errors in synopsis writing and strategies for avoiding them. The roles of the students and supervisor in the production of a synopsis. Writing of mock synopsis. All registered Ph.D students must attend a solution-based interactive workshop to be organized by the School of Postgraduate Studies for a practical demonstration and application of the knowledge acquired from the course, conducted by selected experts (**3 credit units**).

PHT 781: Doctoral Seminar I:

Detailed written presentation of the candidate's Ph.D topic proposal (**3 credit units**).

PHT 782: Doctoral Seminar II

A written presentation on issues, theories and current academic debate in the candidate's area of specialty. This should culminate in a systematic review or meta-analysis on a topic related to the candidates Ph.D research (**3 credit units**).

PHT 783: Doctoral Seminar III

A detailed written pre-synopsis presentation of the result of the candidate's Ph.D research (**3 credit units**).

PHT 790: Doctoral Thesis

Independent research on topic approved by student's graduate committee. Its evaluation will be based on a proposal approved by the faculty and final thesis report (**3 credit units**).