**BMR 3212 ULTRASOUND OF SMALL PARTS, NEONATAL BRAIN & ECHOCARDIOGRAPHY**

Course description:

This course introduces students to ultrasound of small parts and intends to facilitate students to acquire skills in carrying out the techniques of carrying out ultrasound of small parts and interpret the findings.

Purpose:

To facilitate the student acquire knowledge, skills and attitudes in carrying ultrasound of small parts as well as demonstrate appropriate behavior towards patients.

Course Objectives: By the end of the 5 weeks, the student should be able to:

1. Describe the cross sectional and sonographic anatomy of the small parts, neonatal brain, heart and blood vessels.

2. Demonstrate the technique of scanning small parts, neonatal brain, heart and blood vessels. At least 50 cases must be entered in the log book.

3. Identify the pathology and ultra sound appearances of small parts, neonatal brain, heart and blood vessels.

4. Demonstrate good professional conduct when handling patients.

Expected outcomes/Competencies:

1. Ability to carry out the technique for ultrasound of small parts

2. Interpretation of findings

3. Report writing skills

4. Demonstration of good professionalism when handling patients

Content Outline:

• Ultra sound of the small parts: Cross sectional anatomy of the thyroid gland, the testis, breasts and the skin. The physiology and pathology of these organs. The scanning techniques. Pathology and ultra sound appearances.

• Neonatal Brain Scan: Embryology of the fetal brain, cross sectional anatomy, physiology pathology of the brain, the scanning techniques and ultra sound image appearances.

• Ultra sound of the heart and blood vessels: Cross sectional anatomy of the heart and blood vessels principles of Doppler ultra sound. Physiology of the heart, pathology of the heart and the blood vessels. Ultra sound appearances.

Means of delivery:

Over-view lectures, Small group tutorials with a Tutor, Self-directed study, Wrap-up seminars, Question and answer sessions, Skills training, Assignments and practicals and Clinicals, Videos.

Assessment strategies:

There shall be an assessment blue-print for each type of assessment tool chosen.

Formative and summative assessment shall be conducted through MCQs. Modified essays, short notes, Objective Structure Clinical Examination (OSCE), Objective Structure Practical Examination (OSPE) and logbook

Logbook/Portfolio:

A student shall be responsible for keeping a log book of her/his practical experiences for presentation to the Course coordinator before a Certificate of due Performance is issued. The number of cases for the logbook are indicated for each case. The Portfolio shall be used to show evidence of learning by the student as well as reflection which are not captured by the logbook.

There shall be an assessment and feedback session for every student and tutor at the end of every tutorial session. This will include:

a) Continuous assessment during all the learning sessions. This permits immediate feedback. In addition to Logbooks. This will contribute 40% of the mark

b) An end of the block examination consist of:

• Individualized process assessment.

• Modified essay questions.

• Oral examination (OSCE & OSPE)

• MCQs.

Resources & Infrastructure available:

Library (both in the Radiology department and Sir Albert Cook library), Tutorial rooms, Computer services and internet, Content experts, Patients and Teaching-Hospital.

Course duration: 5 Weeks

Requirements: 75 CH, 5CU