**BMR 3211 – OBSTETRIC & GYNAECOLOGICAL ULTRASOUND**

Course description:

This is a comprehensive course in the basic fundamentals of ultrasound physics, routine scan protocols for performing transabdominal and transvaginal obstetrical ultrasound, recognition of normal fetal anatomy, 1st trimester, 2nd trimester, 3rd trimester - GI, GU, CNS, skeletal, cardiac, face, thorax, applying calipers and known landmarks for measuring fetal parameters, amniotic fluid, normal and abnormal placental anatomy, evaluate placenta position and grade, sonography of the multiple gestation, and review 1st trimester unsuccessful pregnancies and sonographic findings of common abnormal fetal pathology. It also involves review of normal gynecological anatomy and physiology (uterus, ovaries), uterine and ovarian pathology, identifies normal sonographic anatomy of the uterus and ovaries, describes routine scan protocols, and measurements for performing transabdominal and transvaginal gynecological ultrasound, normal and abnormal imaging characteristics of ovarian and uterine pathology as well as Doppler ultrasound in Obstetrics and gynaecology.

Purpose:

To enable the student carry out comprehensive obstetrical and gynaecological ultrasound as well as exhibit a high degree of professionalism during when with patients.

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

1. Explain the principles and physics of ultrasound.

2. Describe the use of ultrasound to establish dating criteria in pregnancy.

3. Demonstrate ability to use ultrasound to find the structures reported on 1st through 3rd trimester obstetric examinations.

4. Identify the normal anatomy that can be seen on obstetric ultrasound.

5. Identify abnormalities in obstetrics at ultrasound

6. Describe the sonographic findings and implications of the more commonly noted fetal anomalies seen during an obstetric ultrasound.

7. Appreciate the components of fetal well-being noted by ultrasound.

8. Understand the utility of Doppler ultrasound and its uses during in obstetrics and gynaecology.

9. Review literature appropriate for the obstetrical, medical or surgical conditions of the patient and fetus.

10. Demonstrate ability to methodically perform obstetrical ultrasound scan protocol.

11. Identify the cross sectional and sonographic anatomy of the female pelvis.

12. Review gynecological physiology and pathology.

13. Demonstrate ability to carry out gynecological ultrasound.

14. Identify gynaecological abnormalities at ultrasound.

15. Demonstrate good professional behaviour towards patients

Expected outcomes/Competences

1. Ability to carry out comprehensive obstetric and gynaecological ultrasound.

2. Ability to interpret the findings

3. Ability to write reports

4. Demonstration of professionalism when handling patients

Content outline:

• Cross sectional anatomy of the female reproductive system.

• Physiology and pathology of the female reproductive system.

• Routine ultrasound scanning techniques and protocols

Fundamentals of ultrasound physics and principles of Knobology

• Cross sectional and sonographic anatomy of the male and female pelvis

• Eembryology, physiology and pathology of the various organs

• Obstetric and gynaecological ultrasound. At least 50 cases must be entered in the log book.

• Cross sectional anatomy of the female reproductive system, cross sectional anatomy of the organs of the male pelvic.

• Physiology and pathology of the various organs.

• Scanning techniques.

• Ultra sound appearances, embryology, fetal anatomy, fetal parameters, the gross curves, pathology and ultra sound appearances.

• Report writing skills

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