**BMR 3112 RADIATION PROTECTION AND PUBLIC HEALTH**

Course description:

This course covers the principles of radiation protection to the worker, patients as well as the public.

Purpose:

To facilitate the student acquire knowledge and skills in the applied principles of radiation protection.

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

1. Define the Alara principle

2. Identify permissible doses

3. Discuss effect of ionizing radiation on body cells.

4. Demonstrate ability to protect him/herself, the patient, personnel and public from ionizing radiation.

Expected outcomes/Competencies:

1. Demonstration of ability to protect self, the patient and public from the effects of ionizing radiation.

Content outline:

• Permissible dose; the Alara principle

• Effects of ionizing radiation on body cells

• Radiation monitoring devices

• Patient and personnel protection during radiographic and radiotherapy procedures

• Design of equipment and building

• Occupation health: environmental health

• Handling of acute toxic radiation effects, primary health care, control of common diseases.

Methods 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.

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 is 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.

Course duration: 5 Weeks

Requirements: 75 CH, 5CU