

## Global Medical Physics Continuing Education Course

This course will provide continuing education for practicing medical physicists. The objective is to provide a refresher on didactic material and enhance fundamental knowledge of medical physics. The course has been endorsed by AAPM, FAMPO, and IOMP. It is co-organized by the Global Medical Physics Education and Training Committee (GMPETC) of the AAPM, FAMPO, GSMP, and NAMP.

**Registration opens:** Tuesday, March 18

**Registration closes:** Tuesday, April 1

**Target audience:** Medical physicists practicing in clinics in Africa. All specialties of medical physics are welcome, including diagnostic imaging, nuclear medicine, and radiation therapy.

**Dates:** Begins Saturday, June 14 and held weekly through Saturday, Dec 13.

**Times:** The lectures and discussion are held virtually on Saturdays 2:00-4:00pm GMT.

**Format:** This course will be hosted on the TalentLMS learning management system, with weekly lectures via Zoom.

- Weekly virtual lecture and discussion sessions via Zoom (2 hours each)
  - Attendance is recorded
  - Participation in poll questions during lecture is recorded
- Reading assignments (~2-3 hours per week) before each lecture
  - These will be made available several days before the lecture
  - All materials will be freely available – no need to purchase
- Exams and assignments
  - Exams given before and after the course
  - Additional assignments will be given on weeks where there is no lecture

### **Expectations:**

- Attend all lectures live and participate in live question polling. Any lectures that must be missed must be arranged with the program directors in advance.
- Complete both the pre-exam and the post-exam
- Complete all assignments

**CE Credits:** This program is applying for IOMP Continuing Professional Development and CAMPEP Medical Physics Continuing Education Credits.

## **Course Content:**

This course will cover topics related to the fundamentals of medical physics, similar to that covered in a Medical Physics graduate program. Examples of topics to be covered include the following:

- Concepts of image quality
- Radiography + Fluoroscopy
- Ultrasound imaging
- SPECT + PET + Nuclear medicine
- Computed tomography
- Magnetic resonance imaging
- Cavity theory
- Dosimetry and dosimeters for diagnostic imaging
- Dosimeters + measurement of ionizing radiation for radiation therapy
- Calibration of MV photon and electron beams – TRS 398
- Radiobiology
- EBRT: LINACs, PDD/TMR, beam profiles
- Dose calculation, MUs
- 3D dose calculation
- Brachytherapy
- Radiation Protection and Shielding
- Informatics
- Ethics and professionalism