

University of Pretoria Yearbook 2017

Radiation physics and instrumentation for nuclear medicine 700 (SFI 700)

Qualification	Postgraduate
Faculty	Faculty of Health Sciences
Module credits	15.00
Programmes	BRadHons Nuclear Medicine
Prerequisites	No prerequisites.
Contact time	2 lectures per week
Language of tuition	Module is presented in English
Academic organisation	Radiography
Period of presentation	Year

Module content

Basic concepts of radiation physics, radioactive decay, radionuclide production, interaction with matter, radiation detectors and counting systems. Problems in radiation detection. The gamma camera: performance, image quality, quality control. Digital computers in nuclear medicine. SPECT principles, cameras, quality. PET principles, cameras, quality. Radiation dosimetry and biology. Radiation protection and safety.

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