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# University of Pretoria Yearbook 2017

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

<b>Qualification</b>	Postgraduate
<b>Faculty</b>	<a href="#">Faculty of Health Sciences</a>
<b>Module credits</b>	15.00
<b>Programmes</b>	<a href="#">BRadHons Nuclear Medicine</a>
<b>Prerequisites</b>	No prerequisites.
<b>Contact time</b>	2 lectures per week
<b>Language of tuition</b>	Module is presented in English
<b>Academic organisation</b>	Radiography
<b>Period of presentation</b>	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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