

# University of Pretoria Yearbook 2021

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

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| <b>Qualification</b>          | Postgraduate                               |
| <b>Faculty</b>                | <a href="#">Faculty of Health Sciences</a> |
| <b>Module credits</b>         | 15.00                                      |
| <b>NQF Level</b>              | 08   |
| <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>Department</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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