

Universiteit van Pretoria Jaarboek 2018

Stralingsfisika en stralingsbeskerming 700 (SFR 700)

Kwalifikasie	Nagraads
Fakulteit	Fakulteit Gesondheidswetenskappe
Modulekrediete	15.00
Programme	BRadHons Stralingsterapie
Voorvereistes	Geen voorvereistes.
Kontaktyd	1 besprekingsklas per week
Onderrigtaal	Module word in Engels aangebied
Departement	Radiografie
Aanbiedingstydperk	Jaar

Module-inhoud

*Hierdie inligting is slegs in Engels beskikbaar.

Basic radiation physics. Interactions of X-radiation and gamma rays with matter. Radiation beam attenuation. Treatment machines for external beam radiotherapy. External photon beam and dose quantities. Photon beam measurements and calibrations and treatment dose calculations. Photon beam modification for treatment dose optimisation. Electron interaction with matter and electron therapy. Radiotherapy quality assurance of external beam units and treatment planning systems. Radiation protection and shielding and personnel monitoring. Imaging in radiation oncology. Radiation physics principles of three dimensional conformal radiation therapy and intensity modulated radiation therapy. Procedures and processes involved in Stereotactic radiotherapy and stereotactic radiosurgery. Radiation physics principles of Brachytherapy. Principles of total body irradiation. Radiation interactions in proton and neutron therapy,

Die inligting wat hier verskyn, is onderhewig aan verandering en kan na die publikasie van hierdie inligting gewysig word.. Die [Algemene Regulasies \(G Regulasies\)](#) is op alle fakulteite van die Universiteit van Pretoria van toepassing. Dit word vereis dat elke student volkome vertrouwd met hierdie regulasies sowel as met die inligting vervat in die [Algemene Reëls](#) sal wees. Onkunde betreffende hierdie regulasies en reëls sal nie as 'n verskoning by oortreding daarvan aangebied kan word nie.