

RADIOGRAPHY

RADIOGRAFIE

WHAT IS RADIOGRAPHY?

Radiography is the use of x-rays, other radiation media or ultra sound for the detection and treatment of any illness.

This is an occupation dealing with medical diagnostic images. It is one of the rapidly growing occupations in modern healthcare. Universities and Universities of Technology offer undergraduate and postgraduate degrees in radiography in three professional fields, namely Diagnostics, Radiotherapy and Nuclear Medicine.

SCHOOL SUBJECTS

Mathematics and Physical Science with a minimum D symbol are requirements. Other subjects that may be useful during the study period include Biology and Physiology, but these are not compulsory.

SELECTION REQUIREMENTS

A Grade 12 exemption certificate is a requirement. Students are selected on academic merit in a specific category. Prospective students are advised to visit a busy X-ray department – this will assist you in making the correct career choice.

PERSONAL CHARACTERISTICS

Personal characteristics of a radiographer include the genuine desire to help sick and injured patients. During the course of the day many decisions regarding patient care are taken. Self-discipline, accuracy and responsibility will assist the radiographer in dealing with any situation. The radiographer should enjoy good health, since the work entails a lot of physical movement of the body in supporting and assisting patients and manipulating equipment.

WHAT DOES THE COURSE ENTAIL?

Students follow an academic and a clinical programme during which students attend lectures and gain practical experience. This implies that they may have to work during weekends and on public holidays. It is important that this aspect of the training should be approached with the appropriate attitude from the outset.

Radiographers have to register with the Health Professions Council of South Africa before starting work as student radiographers. The Council lays down certain requirements for clinical experience to be gained during the student's training, and this is a prerequisite for registration as a qualified radiographer.

DIAGNOSTIC RADIOGRAPHY

The diagnostic radiographer is an essential member of the health team and is responsible for forming and capturing diagnostic images of a patient, as referred by a medical practitioner, for a specific radiographic procedure. X-rays are used to form the image on a film. X-

WAT IS RADIOGRAFIE?

Radiografie behels die gebruik van X-strale, ander stralingsmedia, of ultraklank vir die opsporing en behandeling van siektes.

Die beroep handel oor mediese diagnostiese beelding. Dit is een van die snelgroeiende beroepe in moderne gesondheidsorg. Universiteite en Universiteite vir Tegnologie bied voor- en nagraadse programme in radiografie aan in ten minste drie professionele velde, naamlik Diagnostiek, Stralingsterapie en Kerngeneeskunde.

SKOOLVAKKE

Wiskunde en Natuur- en Skeikunde met 'n minimum D-simbool is 'n vereiste. Ander vakke wat waardevol kan wees tydens die studietydperk, is byvoorbeeld Biologie en Fisiologie, maar dit is nie verpligte vereistes nie.

KEURINGSVEREISTES

'n Matrikulasievystellingsertifikaat, is 'n vereiste. Studente word op akademiese meriete in 'n spesifieke kategorie gekeur. Voornemende studente word aangeraai om 'n besige X-straaldepartement te besoek wat hul in staat sal stel om die regte beroepskeuse te maak.

PERSOONLIKE EIENSKAPPE

Persoonlike eienskappe van 'n radiografis behels die opregte begeerte om siek en beseerde pasiënte te help. Baie besluite word deur die loop van die dag ten opsigte van pasiëntsorg geneem. Selfdiscipline, noukeurigheid en verantwoordelikheid sal die radiograaf help om situasies te hanteer. Die radiograaf moet oor goeie gesondheid beskik, want die beroep behels baie fisiese beweging deur ondersteuning en hulpverlening aan pasiënte en die manipulering van apparaat.

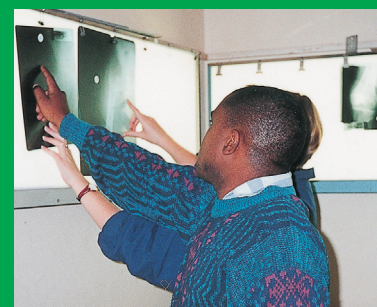
WAT BEHELS DIE KURSUS?

Studente volg 'n akademiese en kliniese program waartydens hulle lesings bywoon en praktiese ervaring opdoen. Dit behels soms dat daar tydens naweke en openbare vakansiedae gewerk kan word. Dit is belangrik dat hierdie aspek van die opleiding van die begin af met die regte gesindheid benader word.

Radiograwe is verplig om by die Raad vir Gesondheidsberoeppe van SA te registreer voordat hulle as studentradiograwe mag werk. Die Raad stel bepaalde vereistes vir kliniese ervaring wat tydens die student se opleiding opgedoen moet word, en dit is 'n voorvereiste vir registrasie as gekwalifiseerde radiograaf.

DIAGNOSTIESE RADIOGRAFIE

Die diagnostiese radiograaf is 'n noodsaaklike lid van die gesondheidspan en is verantwoordelik vir die vorming en vaslegging van diagnostiese beelde van 'n pasiënt, soos verwys deur 'n mediese praktisyn vir 'n spesifieke radiografiese prosedure. X-strale word



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ray procedures are of varying complexity and range from simple skeletal examinations to sophisticated high technology examinations. In the latter cases, X-rays as well as computers may be used to produce an image. Fractures, brain tumours, haemorrhages and blood clots are only a few of the medical problems diagnosed by these sophisticated devices.

RADIATION THERAPY

The therapeutic radiographer is involved in immobilisation and localisation procedures, accurate dosage planning and application of treatment by means of ionising rays to patients with tumours (usually malignant) according to the prescription of a radiotherapist (specialist medical practitioner). The therapeutic radiographer is an important member of the therapeutic team. In addition to the application of treatment using sophisticated electronic equipment, the radiographer plays an important part by physically and emotionally supporting patients and their families during a course of radiation.

NUCLEAR MEDICINE

The nuclear medical radiographer operates in the medical fields where various radioactive agents are used in diagnosing and treating diseases. The radiographer is responsible for the preparation and application of the radioactive agent to the patient. Computer analysis of diagnostic functional images is obtained in this way by using sophisticated equipment.

TRAINING

UNIVERSITY

A 3-year BRad degree is offered. The BRad degree grants admission to study for Honours degree in Diagnostics, Radiation Therapy and Nuclear Medicine or a Master's Degree and PhD in Radiography.

UNIVERSITY OF TECHNOLOGY: A 4-year BTech Radiology is offered. Students can also complete MTech and DTech degrees.

DURATION OF COURSE

During the three year full-time university course (BRad), the first year is a general one, and from the second year students may specialise in one of the following fields: Diagnostics, Radiation Therapy or Nuclear Medicine.

CAREER OPPORTUNITIES

The qualified diagnostic radiographer may be employed by hospitals, private clinics, the SA National Defence Force, mining companies, private radiological practices, training bodies, specialised units such as angiography, computer tomography, magnetic resonance and ultrasound, companies supplying apparatus and equipment. Radiographers may also occupy managerial posts or may establish their own practice.

gebruik om die beeld op 'n film te skep. X-straalprosedures varieer in kompleksiteit en wissel van eenvoudige skeletale ondersoeke tot gesofistikeerde, tegnologiese ondersoeke. X-strale, sowel as rekenaars kan gebruik word om 'n beeld te produseer. Frakture, gewasse, bloeding en bloedklonte is 'n paar van die mediese probleme wat deur dié gesofistikeerde aparate gediagnoseer kan word.

STRALINGSTERAPIE

Die terapeutiese radiograaf is betrokke by immobilisering- en lokaliseringsprosedures, noukeuringe dosisbeplanning en behandeling deur middel van ioniserende strale aan pasiënte met gewasse (gewoonlik kwaadaardig) volgens die voorskrif van 'n radioterapeut (spesialisgeneesheer). Die terapeutiese radiograaf is 'n belangrike lid van die terapeutiese span. Benewens behandeling met behulp van gesofistikeerde elektroniese toerusting, vervul die radiograaf 'n belangrike rol by die fisiese en emosionele ondersteuning van pasiënte en hulle gesinne tydens 'n kursus bestraling.

KERNGENEESKUNDE

Die kerngeneeskunde radiograaf werk met verskeie radio-aktiewe middels vir die diagnose en behandeling van siektes. Die radiograaf is verantwoordelik vir die voorbereiding en toediening van die radio-aktiewe middel aan die pasiënt. Rekenaaranalise van diagnosties-funksionele beelde word verkry deur die gebruik van gesofistikeerde toerusting.

OPLEIDING

UNIVERSITEIT

'n Drie-jaar BRad graad word aangebied. Die BRad graad verleen toegang tot die Honneursgraad in Diagnostiek, Stralingsterapie en Kerngeneeskunde, gevolg deur 'n Magistersgraad en PhD in Radiografie.

UNIVERSITEIT VIR TEGNOLOGIE: 'n Vier-jaar BTech: Radiologie kwalifikasie word aangebied. Studente kan ook die MTech en DTech grade voltooi.

DUUR VAN KURSUS

Tydens die voltydse drie-jaar Universiteitskursus (BRad), is die eerste jaar 'n algemene jaar. Vanaf die tweede jaar kan studente spesialiseer in: Diagnostiek, Stralingsterapie of Kerngeneeskunde.

BEROEPSMOONTLIKHEDE

Die gekwalifiseerde diagnostiese radiograaf kan in diens geneem word by hospitale, privaatklinieke, die SA Nasionale Weermag, mynmaatskappye, privaat radiografiese praktyke, opleidingsinstansies, gespesialiseerde eenhede soos angiografie, rekenaar-tomografie, magnetiese resonansie en ultraklank, of as verteenwoordiger vir firmas wat apparaat en toerusting verskaf. Radiograwe kan ook bestuursposte beklee of 'n eie praktyk vestig.

