Career Focus - RADIOLOGY

Volume1, Issue 12

01 July 2013

As a radiologist you'll be a vital member of the patient care team. Whether producing an x-ray image to detect a broken bone or delivering radiation therapy to destroy a cancerous tumor, radiologist provide the care that leads to diagnosis, treatment and cure. For a career that makes a difference in others' lives while improving your own, investigate radiologic technology.

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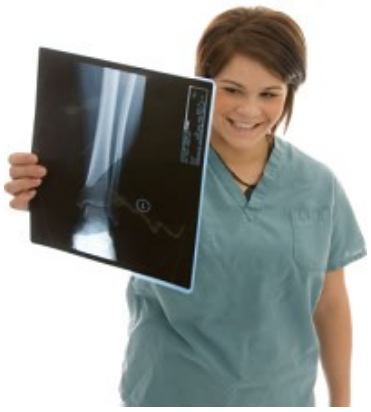

What is a RADIOGRAPHER & RADIOLOGIST ?

Radiographers take X-rays and apply radioactive substances or ultrasound to patients for diagnostic and therapeutic purposes. They work at the request of a dentist or a qualified doctor or specialist, such as a radiologist.

Note the difference between a radiographer and a radiologist. **Radiologists** are specialized medical practitioners, who diagnose and treat diseases using radiant energies such as X-rays, ultrasound, gamma rays and radio waves. While a **radiographer** may take the X-rays, only a radiologist may interpret them.

Radiographers are responsible for using complex and expensive equipment for the well-being of patients during their investigation or treatment. Radiographers take Rontgen photographs of the body's internal structures and treat abnormalities with radiation.

There are four disciplines in Radiography, namely:

Diagnostic radiography: In this discipline the radiographer is trained to position the patient and record the relevant positions, conditions and functions of the various anatomical structures and organs of the body. They capture X-ray images of the human body on film or other media using sophisticated X-ray equipment. Any abnormalities in these recorded images enable the radiographer to make a diagnosis.

Therapeutic radiography: Here the radiographer is concerned with the treatment of disease, mostly cancer, through X-rays and other radiations, for example, gamma rays from radium and cobalt-60. Therapeutic radiographers are also involved in the technical planning of the treatment and patient care.

Nuclear medicine: In this discipline, radiographers are trained in the use of radioactive nuclides that are introduced into the body to take images of the anatomy and physiology of the patient. By means of different radiation structures, organs in the body can be visually monitored and analyzed so that doctors can make diagnoses.

Ultrasound: These radiographers, also called sonographers, specialize in ultrasound and use apparatus that generates high frequency sound waves to record images of soft tissue.

Radiographers or radiological technologists use highly sophisticated X-ray equipment, mammographs, or C.T. (computerized tomography) scanners to produce image that are used by radiologists to diagnose the extent of disease or injury. These images may be displayed on X-ray film, movie film, videotape, television monitors or computer read-outs.

RADIOGRAPHER - Education and Career Paths

Medical imaging technologists who are employed in a hospital may work in the radiology department, use mobile X-ray units at patients' bedsides or work in an operating theatre. They work as part of a team with other health professionals, medical staff and nursing staff.

Radiographers may also be involved in administration, personnel management or teaching. Participation in an on-call roster for after-hours emergencies may also be required. The work is highly technical and exacting, and applicants must feel comfortable with complex instruments, possess considerable manual dexterity and have meticulous work habits. The profession is both physically and mentally demanding and therefore requires individuals who cope well in a stressful environment.

Some satisfying aspects of this career
- helping people
- being an important member of a medical team

Some demanding aspects of this career
- sometimes having to work shifts and, when on call, having to work nights, weekends and holidays
- working with demanding or unpleasant people
- having to work with very sick or seriously injured patients

Requirements
A radiographer should:
- have good health and stamina;
- be able to get along well with others;
- have a desire to help people;
- be emotionally mature and stable;
- inspire confidence and set patients at ease;
- be an accurate and thorough worker;
- have sympathetic and understanding approach, caring nature
- be able to inspire confidence and set patients at ease
- be accurate and thorough worker
- have a strong sense of responsibility
- have excellent interpersonal skills
- have strong problem-solving skills
- be able to work as part of a team

School Subjects
National Senior Certificate meeting degree requirements for a degree course
National Senior Certificate meeting diploma requirements for a diploma course
Each institution will have its own minimum entry requirements.
Compulsory Subjects: Mathematics, Physical Sciences
Recommended Subjects: Life Sciences

Training
Degree: BRadiography (Radio Diagnostics) - UNAM, UP, NMMU, UJ.
Diploma: N.Dip:and B.Tech: Radiography - CUT, CPUT, DUT.

The duration of the course is 3 years. A fourth year will culminate in the BTech Radiography. Students can also complete the MTech and DTech degrees - UJ, NMMU.

Employer
- Hospitals and clinics (private as well as government controlled)
- The Department of Health
- The Chamber of Mines
- Namibian Defence Force
- Municipalities
- Private radiological practices
- Universities and universities of technology
- Self-employment, after registration can go into private practice or partnership

Where to study Radiography?

University of Namibia

BACHELOR OF RADIOGRAPHY (DIAGNOSTIC)

ADMISSION:

To register in this program, a candidate should hold a valid National Senior Secondary Certificate (NSSC) at higher level or equivalent. Candidates should obtain a minimum of 25 points on the UNAM Evaluation Point Scale in five subjects. English is a compulsory subject with a grade C or better as a second language or a grade D or better as a first language, Mathematics grade C or better and Physical Science grade C or better.

Note: Annually after registration, every student must furnish the Faculty with proof of current registration as a student with the Allied Health Professions Council of Namibia.

A candidate who is in possession of a National Diploma in Radiography (Diagnostic) will be exempted for 1st and 2nd year of the Bachelor of Radiography (Diagnostic) as well as Radiation Technique 3 (MRRT 3760), Clinical Radiation Technique 3 (MRCR 3760).

DURATION OF THE STUDY:

The minimum duration for full time students enrolled for Bachelor of Radiography (Diagnostic) degree will be four (4) years with a maximum period of six (6) years.

Cape Peninsula University of Technology (CPUT S.A)
RADIOGRAPHY (DIAGNOSTIC)

The aim of the course is to develop professionals who, in addition to demonstrating the knowledge and skills required in Diagnostic Radiography, Nuclear Medicine, Ultrasound, or Radiation Oncology, have also gained experience in applying such knowledge and skills in the appropriate workplace context.

The radiographer should be proficient in a range of generic and academic skills, having a broad integrated knowledge of health science. The radiographer should be a reflective practitioner and a life-long learner in the profession in order to benefit the community and society.

The curriculum facilitates the holistic development of the student. Students gain early exposure to the clinical environment and are involved with patients from early in the programme

Course is offered for a duration of 3 years (full time) at Tygerberg Hospital Campus and Groote Schuur Hospital

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Reference : http://www.unam.na ; http://www.cput.ac.za/academic/faculties/healthwellness/

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TUCSIN AA Radiology Professionals

Ms Christine Damases is a Namibian lecturer in the Faculty of Medical and Health Sciences at the University of Namibia . She has been involved in radiography education for the past 8 years.

Ms Christine Damases

Radiographer Lecturer

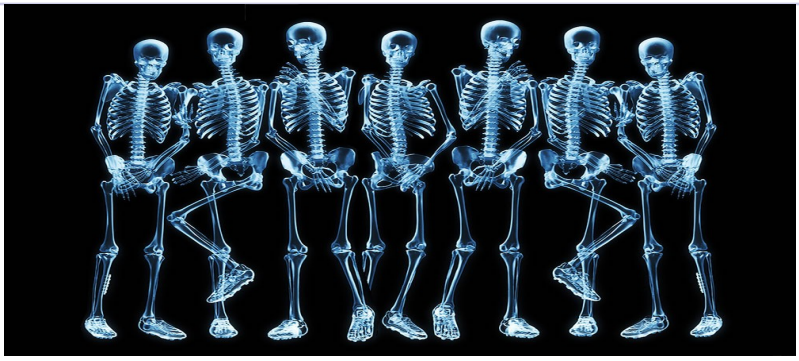
Tertiary Education :

- MTech Masters of Tech Diagnostic Radiography —Durban University of Technology, Durban, South Africa, 2007.
- B.Tech. (Bachelor of technology Diagnostic Radiography), Durban University of Technology, Durban, South Africa, 2000.
- NDR (National Diploma in Radiography), University of Namibia, Windhoek, Namibia,1999

Other :

Wilhelmina Bezuidenhout

Senorita Polster



***A Happy Accident*.**

My favorite radiology fun fact is still the scientific breakthrough of x-rays being an accidental invention. While studying the path of electricity, Wilhelm Roentgen noticed that the image sticking to a paper contained details not found in an ordinary photograph. After further investigation, he took his first actual x-ray of his wife's hand. Following Roentgen's discovery, Dr. Harvey Cushing further advanced the technology for diagnostic clinical x-rays. In 1902, he began performing ground-breaking work in surgery, including brain surgery, using the technology to help him locate and remove tumors.

Reference : http://www.amberusa.com/dmxreadyv2/blogmanager/blogmanager.asp?post=fun_facts_radiology_history

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