

Career Profile: Diagnostic Radiographer

A radiographer operates x-ray and other imaging equipment in order to produce images referred to collectively as radiographs, which are used in diagnosing a patient who is diseased or injured. The radiographer is responsible for producing quality x-rays or other images according to specified requests from the patient's doctor. Radiologists, who are qualified physicians, then interpret the images and the results are helpful in the subsequent treatment and management of the patient's injury or disease.

Radiography can be grouped broadly into two types:

- **Diagnostic radiography.** A diagnostic radiographer usually works within the radiology and imaging department of a hospital or in surgeries or clinics. There are a wide range of different imaging modalities, e.g. x-rays, magnetic resonance imaging, ultrasound, and nuclear medicine, for capturing images of the human body on film or other media using sophisticated equipment.
- **Therapeutic radiography.** A therapeutic radiographer delivers doses of x-rays and other ionising radiation to patients, most of whom are suffering from various forms of cancer. The aim of the treatment is to deliver an accurate dose of radiation to the tumour/cancer whilst minimising the dose received by the surrounding tissues. The radiographer establishes the location of the area to be treated and works out the exact dosage required with doctors and medical physicists.

Typical activities a diagnostic radiographer may engage in include:

- setting up the machine and showing patients the position they need to stand or lie down in
- dealing with patients in a one-on-one situation and answering questions a patient may have and calming apprehensions they may be experiencing
- taking the necessary images and checking the quality of the resulting images
- retaking them if patients move or breathe during the procedure because the radiologist needs clear images to study
- following the safety procedures when operating x-ray equipment such as making sure that the patient wears a radiation shield to protect him or her from harmful radiation, and moving behind a radiation shield when taking images
- working closely with clinicians and other doctors to assist with tasks.

Education Requirements

National Senior Certificate (NSC)

For a career in radiographer or medical imaging technology students are advised to select Mathematics and Physical Science or Biology and to add to this a selection from the *designated* subjects. These are subjects that are particularly suitable for tertiary study.

Bachelor Degree

Bachelor in Radiography BRad (3 years)

A three year degree programme that focuses on developing knowledge and skills for entry into careers in the field of radiography.

Offered at:

- [University of Limpopo](#)¹ in partnership with the Tshwane University of Technology (BRadiology (Department Of Diagnostic Radiology and Imaging))
- [University of Pretoria](#)² (Department of Radiographic Sciences - Bachelor in Radiography (3 years))

National Diploma / BTech

NDiploma in Radiography Diagnostic (3 years)

Bachelor of Technology Radiography (Diagnostic) (1 or 2 years depending on options)

- [Tshwane University of Technology](#)³ (N Diploma. Radiography (Diagnostic), BTech Radiography (Diagnostic))
- [University of Johannesburg](#)⁴ (Department of Radiography)
 - [N Diploma in Radiography Diagnostics](#)⁵
 - [Information on BTech options](#)⁶
 - [BTech Radiography \(Diagnostic\)](#)⁷

All students and qualified radiographers must register with the Health Professions Council of South Africa (HPCSA).

Possible Employers

- The Department of Health
- Hospitals and clinics (government and private)

¹ http://www.ul.ac.za/index.php?Entity=med_dep_rad#aca

² <http://web.up.ac.za/default.asp?ipkCategoryID=1633>

³ http://www.tut.ac.za/Students/facultiesdepartments/science/departments/Documents/b_Biomedical%20Sc.pdf

⁴ <http://www.uj.ac.za/radiography/Home/tabid/2725/Default.aspx>

⁵ <http://www.uj.ac.za/radiography/StudyInformation/Undergraduate/NationalDiploma/Diagnostics/tabid/7855/Default.aspx>

⁶ <http://www.uj.ac.za/radiography/StudyInformation/Postgraduate/BackgroundInformation/tabid/7858/Default.aspx>

⁷ <http://www.uj.ac.za/radiography/StudyInformation/Postgraduate/BTech/DiagnosticUltrasound/tabid/7861/Default.aspx>

- The Chamber of Mines
- South African Defence Force
- Municipalities
- SANTA (South African National Tuberculosis Association)
- Private radiological practices
- Universities and universities of technology

Find out more

- [Society of Radiographers of South Africa](#)⁸, Online Journal – The South African Radiographer.
- [HPCSA](#)⁹ Criteria for registration as a radiographer or student radiographer.
- [Go Study](#)¹⁰ has useful information on career options in radiography.
- Find out about the radiologists' support for role extension of South African radiographers in trauma and emergency situations. The [South African Radiographer](#)¹¹, April 2009, Vol 47 number 1
- The [British National Health Service](#)¹² (NHS) has some useful information on a career in radiography.
- The [UK Society of Radiographers](#)¹³ has an interesting and informative website on careers in radiography.
- Website of the [American College of Radiology](#)¹⁴.

⁸ <http://www.sorsa.org.za/>

⁹ <http://www.hpcsa.co.za/hpcsa/default.aspx?id=271>

¹⁰ <http://www.gostudy.mobi/Careers/View.aspx?id=223>

¹¹ <http://www.sar.org.za/index.php/sar/article/view/138/117>

¹² <http://www.nhscareers.nhs.uk/details/Default.aspx?Id=189>

¹³ <http://www.radiographycareers.co.uk/>

¹⁴ <http://www.acr.org/>

Are you suited to this career?

This quick quiz can help you to identify whether you are suited for this career.

Quiz	YES	NO
Do you enjoy helping people?		
Are you good at putting people at ease?		
Would your friends consider you to be mature and responsible?		
Are you able to work methodically and carefully?		
Do you enjoy working with technology and machinery?		
Are detail and accuracy in your work important to you?		
Do you enjoy solving problems?		
Would you be prepared to work long and sometimes irregular hours?		
Do you work well with other people and communicate clearly with them?		
Are you physically strong and healthy?		

If you have mainly yes answers it may be an indication that this is a career to consider.