



## **HEALTH PROFESSIONS COUNCIL OF SOUTH AFRICA PROFESSIONAL BOARD FOR RADIOGRAPHY AND CLINICAL TECHNOLOGY**

### **guidelines for examinations of foreign qualified radiographers in the category diagnostic**

#### **1. PREAMBLE**

These assessment guidelines underpin the commitment of the Radiography and Clinical Technology (RCT) Board towards ensuring the competency of health practitioners registers falling within the ambit of the Board. The guidelines under the overall mandate of the Health Professions Council of South Africa (HPCSA) is to protect the public and promote the health of all people in South Africa by ensuring high standards of education and training.

#### **2. PURPOSE**

The purpose of the examination guidelines are to ensure that practitioners with foreign qualifications are fit to practice within the South African context. Practitioners with foreign qualifications should approach Universities approved by the RCT Board for their Board examinations. It is thus, crucial that the Board uses standardized examinations and assessment criteria across Universities.

These guidelines are to:

- 2.1 Ensure a clear framework of principles, regulations and procedures all Universities should follow when conducting the Board examinations.
- 2.2 Ensure alignment of assessment practices across all Universities participating in the HPCSA Board examinations.
- 2.3 Provide a framework for the management of quality of the Board examinations for foreign qualified practitioners.

### **3. ADMISSION CRITERIA**

All individuals who practice in any of the health care professions incorporated within the scope of the HPCSA are obliged by the Health Professions Act, 1974, to register with the HPCSA, as such failure to do so, constitutes a criminal offense.

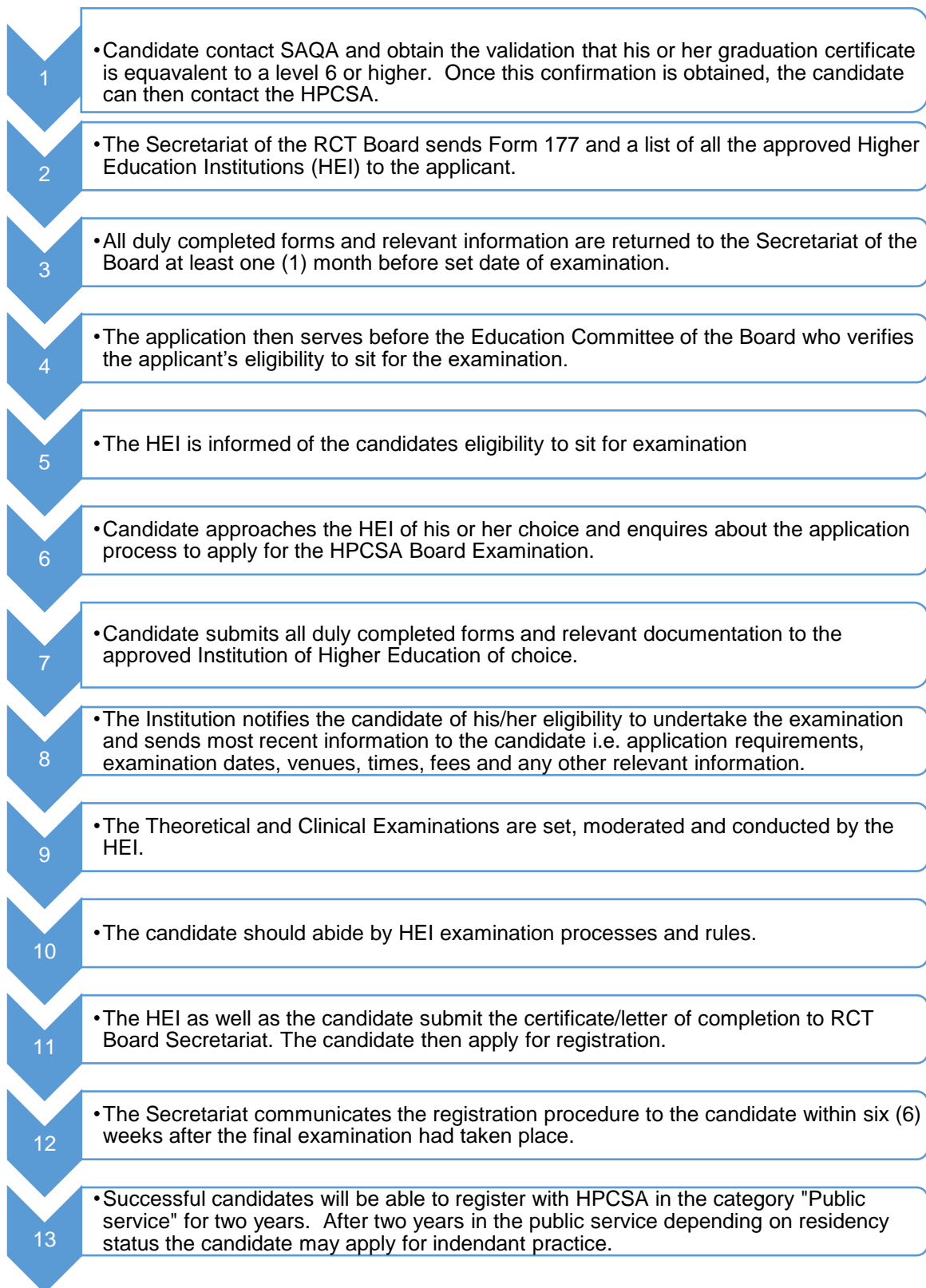
In terms of the policy of the Professional Board for Radiography and Clinical Technology all foreign qualified candidates are required to challenge the entry examination in order to determine their eligibility to register with HPCSA. Registration with HPCSA does not imply in any way that employment is guaranteed. The onus for finding employment rests with the candidate.

The following admission criteria must apply:

- 3.1 Only candidates who qualify for registration (if applicable) to practice in the country where they have obtained their first radiography qualification will be allowed to sit for the examination.
- 3.2 The duration of the radiography training should have been a minimum of three (3) successful years. Should the duration of the training be less than three (3) years, the candidate should be advised to approach an accredited training institution to apply to upgrade their qualification. The rules and requirements of that institution will apply. The onus for arranging this rests solely with the candidate and is not a function of the Board.

3.3 The candidate's radiography training should be of an academically acceptable standard and must be comparable to the academic standard of the South African Qualifications Authority (SAQA). The candidate should further have had two years clinical training post-graduation in line with the South African requirement.

#### 4. APPLICATION AND EXAMINATION PROCESS



## **5. PURPOSE OF EXAMINATION**

The purpose of the examination is to establish that all foreign qualified radiographers applying to work in South Africa are able to -

- 5.1 Apply knowledge and skills to perform and adapt techniques applicable to the clinical condition of the patient.
- 5.2 Care for the patient responsibly and efficiently to ensure that the welfare and safety of the patient is maintained.
- 5.3 Apply appropriate South African health and safety regulations, ethical principles and codes of practice in performance of techniques.
- 5.4 Demonstrate competency in the execution of techniques within the scope of a diagnostic radiographer.
- 5.5 Display knowledge and understanding of equipment used.
- 5.6 Operate equipment effectively and competently.
- 5.7 Express an understanding of the principles and techniques of imaging.
- 5.8 Display knowledge of Quality Assurance and Quality Control with regards to image quality and equipment function.
- 5.9 Exhibit a level of insight and ability to apply skills and techniques within the context of diagnostic radiography service delivery.
- 5.10 Produce images of acceptable diagnostic quality.
- 5.11 Apply basic pattern recognition skills.
- 6.12 Display an awareness and understanding of the South African health care system.

## **6. ADMISSION TO THE EXAMINATION**

Approval for entry to the examination must be granted by the Education, Training and Registration Committee of the Professional Board for Radiography and Clinical Technology.

The candidate must comply with the application and examination requirements set by the HEI. Failure to comply will result in exclusion from the examination.

## **7. EXAMINATION PRINCIPLES FOR HEI**

The Board Examination must be founded on good principles of practice. The following principles shall apply-

- 7.1 The HEI must communicate the purpose of the Board Examination and format of the Board Examination to its candidates prior to assessment.
- 7.2 The Board Examination should include a wide range of assessment approaches and methods that are fit for purpose; the use of integrated assessment is recommended.
- 7.3 Quality assurance is integral to assessment and is the responsibility of the relevant HEI.
- 7.4 The Board Examination must be *Fair* and set in accordance to HEI standard principles ensuring that candidates are treated equally and in an unbiased manner and that all candidates have access to the appeal mechanisms of the HEI.
- 7.5 The Board Examination must be *Transparent*, to ensure that assessors, candidates and moderators understand the system and have the assurance that it is well planned and properly regulated.
- 7.6 The Board Examination must be *Reliable*, in ensuring that the accuracy and consistency of the results and judgements made. This would be evident in that the same judgments pertaining to standards of assessments, assessment

evidence and marks would be attained regardless of who the assessor is or how many different people are assessing.

7.7 The Board Examination must be *Valid*, in ensuring that the Board Examination assesses what it was set out to assess in respect outcomes stated in Section 6 of this document.

8.8 The Board Examination must be *Clear*, in ensuring that the language used clearly expresses the requirements against which student performance is measured and that it incorporates a mechanism to avoid assessor/moderator deviation, inconsistency and error.

## **8. FORMAT OF EXAMINATION**

The frequency of the Board examination will be at the discretion of the HEI.

Each Board examination will comprise of three (3) parts namely-

### **Part 1: Theoretical Examination**

8.1 This part of the Board examination consists of a three (3) hour paper that is set at the **final exit level** of the South African Diagnostic radiography qualification.

8.2 The theoretical part of the Board examination covers an integration of the following **final exit learning areas**: anatomy, physiology, pathology, radiographic technique, radiographic equipment and science, radiation protection, radiographic management, patient care, ethics, human rights and law as well as quality assurance.

### **Part 2: Image Evaluation**

8.3 The image evaluation part of the Board examination consists of a one (1) – two (2) hour assessment that is set at the **final exit level** of the South African Diagnostic radiography qualification.

8.4 This examination is done on the date set by the HEI.

- 8.5 It consists of about eight (8) to fifteen (15) slides consisting of radiograph images with five (5) minutes allowed per image. These images will be presented in digital form.
- 8.6 This examination includes the critical assessment/evaluation of **radiographic images** with regards to image quality, radiographic technique, identification of anatomical structures and identification of common pathological conditions/abnormal patterns.

### **Part 3: Clinical Examination/Assessment**

- 8.7 The venue for the clinical examination must be at an approved clinical site used by the HEI for students.
- 8.8 During this examination, candidates are required to perform two (2) full sets of radiographic clinical examinations on two (2) separate patients, one of which shall be a chest examination.
- 8.9 The assessment criteria for the clinical examination will include (but is not limited to) the following:
- Assessment and understanding of request form and examination requested
  - Introduction to the patient
  - Obtaining informed patient consent
  - Correct identification of the patient and checking of all patient's details
  - Room preparation including infection control
  - Patient preparation
  - Patient care and communication
  - Radiographic techniques
  - Radiation safety and protection – application of ALARA principle to patient, public and staff
  - Competent and safe use of equipment and accessories
  - Correct protocol followed
  - Image quality produced
  - Assessment of images including knowledge of anatomy and pathology.



- Assessment of images to include knowledge of contrast, density, medico legal aspects, artefacts, positioning errors, etc.
- Corrective measures to improve quality.

## **9. CALCULATION OF FINAL MARK**

A pass mark of 65% for the clinical examination and 50% for the theory examination must be obtained as a final mark. The mark for the image evaluation will be included in the clinical mark - together these should result in an average of 65% or more. Marks will be calculated as follows:

Final mark for Image evaluation + Clinical 1 ÷ 2 must be a minimum of 65%

Final mark for Theory must be a minimum of 50%.

## **10. FULFILLMENT FOR REGISTRATION**

A pass mark of 65% for the clinical examination (including the image evaluation) **AND** 50 % for the theory examination must be obtained as final marks. **BOTH** must be achieved in order to pass.

**If a candidate fails one of the two components, they will be considered as having failed the Board examination, upon which ONE re-assessment for that specific component may be afforded to such candidates. If both components are failed, the candidate may be offered ONE re-assessment. The re-assessments will take place on a date set by the Education, Training and Registration Committee of the Board.**

A candidate is therefore required to obtain **both minimum pass marks** as stated above in order to register with HPCSA.

A candidate will only be allowed to sit for the entry examinations for a maximum of two (2) attempts.

## **11. BRIEF OVERVIEW OF 3<sup>rd</sup> YEAR TECHNIQUE SYLLABI**

- a. Paediatric Radiography
- b. Mammography (Basic introduction only)
- c. Interventional Radiology
- d. Forensic Radiology

- e. Arteriography & Venography
- f. Cardio – Angiography
- g. Spine: Myelography
- h. Bones and Joints: Arthrography
- i. Salivary Glands
- j. Computed Tomography
- k. Magnetic Resonance Imaging
- l. General skeletal radiography (orthopaedics)
- m. Trauma and emergency radiography
- n. Anatomy, physiology and pathology
- o. Radiation protection
- p. Equipment and radiation science
- q. Radiographic management
- r. Ethics, human rights and medical law
- s. Image evaluation and Pattern recognition.

## 12. SUGGESTED READING LIST

Title	Author/s	Publisher	Edition
A Guide to Radiological Procedures	Chapman, S & Nakielny, R (editors)	WB Saunders	Latest edition
Clark's Positioning in Radiography	Swallow, RA; Naylor, E; Roebuck, EJ & Whitley, AS.	Butterworth: Heinemann	Latest edition
Comprehensive Radiographic Pathology	Eisenberg & Johnson	Mosby, Elsevier	Latest edition
Merrill's Atlas of Radiographic Positions and Radiological Procedures	Ballinger, PW & Frank, ED	Mosby	Latest edition Volumes 1, 2 & 3
Textbook of Radiographic Positioning and Related Anatomy,	Bontrager, K.L & Lampignano, J.	Mosby	Latest edition
Diagnostic Imaging, latest edition.	Armstrong, P. Wastie, ML & Rockall.	Blackwell Science	Latest edition
Principles of Anatomy and Physiology,	Tortora, G & Grabowski, SR.	John Wiley & Sons	13 <sup>th</sup> edition or latest.
Principles of Radiographic Imaging: An Art and Science.	Carlton, R & Adler, A	Saunders	5 <sup>th</sup> edition or latest.

Radiologic Science for Technologists, (2013)	Bushong, S C	Mosby	10 <sup>th</sup> edition or latest.
Chesney's Radiographic Imaging, (1995)	Ball, J & Price, T	Blackwell Science	6 <sup>th</sup> or latest edition.
Imaging Atlas of Human Anatomy	Weir, J. Abrahams, P. Spratt, J. & Salkowski	Mosby	4 <sup>th</sup> or latest edition.

### 13. REMARKING OF SCRIPTS

- a. Only candidates who had obtained a pass rate of 45-49 % in the theoretical examination may apply for their scripts to be remarked.
- b. A remarking fee will be charged for all remarking requests.
- c. The Institution shall determine its remarking fee and candidates should contact the institution concerning the procedure to be followed when requesting a remark.
- d. Should a candidate pass the theoretical examination but fail the clinical examination, one further attempt will be allowed (See section 11 above).

### 14. ADDITIONAL INFORMATION

For further enquiry contact:

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