SAUDI BOARD RESIDENCY TRAINING PROGRAM

RADIOLOGY TECHNOLOGY – NUCLEAR MEDICINE (NM)

Promotion Examination

Written Examination Format:

- A written examination shall consist of one paper with not less than 100 MCQs with a single best answer (one correct answer out of four options). Up to 10% of unscored items can be added for pretesting purposes.
- The examination shall contain type K2 questions (interpretation, analysis, reasoning, and decision-making) and type K1 questions (recall and comprehension).
- The examination shall include basic concepts and clinical topics relevant to the specialty.
- Clinical presentation questions include history, clinical findings, and patient approach. Diagnosis and investigation questions; include the possible diagnosis and diagnostic methods. Management questions; including treatment and clinical management, either therapeutic or nontherapeutic, and complications of management. Materials and Instruments questions; including material properties, usage, and selection of instruments and equipment used. Health maintenance questions; include health promotion, disease prevention, risk factors assessment, and prognosis.

Passing Score:

The trainee's performance is assessed in each of the evaluation formulas according to the following scoring system:

Score	Less than 50%	50% – 59.4%	60% - 69.4%	More than 70%
Description	Clear Fail	Borderline Fail	Borderline Pass	Clear Pass

1. To upgrade the trainee from a training level to the next level, she/he must obtain at least a Borderline Pass in each evaluation form.
2. The program director may recommend to the local supervision committee to request the promotion of the trainee who did not meet the previous promotion requirement according to the following:
    A. In case the trainee gets a **Borderline Fail** result in one of the evaluation forms, the remaining evaluation forms must be passed with **Clear Pass** in at least one of them.
    B. In case the trainee gets a **Borderline Fail** result in two of the evaluation forms to a maximum, provided they do not fall under the same theme (Knowledge, Attitude, Skills). The remaining evaluation forms must be passed with **Clear Pass** in at least two of them.
    C. The promotion must be approved in this case by the scientific council for the specialization.

Blueprint Outlines:

(Nuclear Medicine):

No.	Sections	Percentage
1	NM-Bone	15%
2	NM-Renal	15%
3	NM-Endocrine	10%
4	NM-Hepatobiliary	10%
5	NM-Infection	5%
6	NM-Oncology	15%
7	NM-Neuro	10%
8	NM-GI	10%
10	NM Advanced Physics	10%
Total		**100%**

Notes:

- Blueprint distributions of the examination may differ up to +/-5% in each category.
- Percentages and content are subject to change at any time. See the SCFHS website for the most up-to-date information.
- Research, Ethics, Professionalism, and Patient Safety are incorporated within various domains.

Suggested References:

General books (clinical & physics-focused books):

- Getting Started in Clinical Radiology: From Image to Diagnosis, Paperback, 2005, by George W. Eastman. Thieme.
- Radiologic Science for Technologists: Physics, Biology, and Protection, Hardcover, 11th edition, by Stewart C. Bushong. Mosby.
- The Practice of Radiology Education: Challenges and Trends. Hardcover, 2009, by Teresa van Deven. Springer-Verlag Berlin Heidelberg.
- The Essential Physics of Medical Imaging, Hardcover, 3rd Edition, by Jerrold T. Bushberg. Lippincott Williams & Wilkins.
- Patient Care in Radiography: With an Introduction to Medical Imaging, Paperback, 9th Edition, by Ruth A. Ehrlich. Mosby.

X-ray-focused books:

- Bontrager's Handbook of Radiographic Positioning and Techniques. Spiral-bound, 8th edition, by Kenneth L. Bontrager. Mosby.
- Clark's Positioning in Radiography. Hardcover, 13th edition, by Stewart Whitley. CRC Press.
- Radiographic Pathology for Technologists. Paperback, 6th edition, by Nina Kowalczyk. Mosby.

- Computed Tomography, 5th Edition. Physical Principles, Patient Care, Clinical Applications, and Quality Control. Author: Euclid Seeram. Date of Publication: 09/2022
- Radiation Safety, Nuclear and Radiological Regulatory Commission NRRC-R-1.

Nuclear Medicine-focused books:

- Nuclear Medicine and PET/CT: Technology and Techniques. Hardcover, 7th edition, by Paul E. Christian. Mosby.
- Nuclear Medicine Physics: The Basic. Paperback, 7th edition, by Ramesh Chandra. Lippincott Williams & Wilkins.
- Fundamentals of Nuclear Pharmacy. Hardcover, 7th edition, by Gopal B. Saha. Springer.

Crash Courses:

- Outline of each course including suggested reading references given by the provider.

Note:

This list is intended for use as a study aid only. SCFHS does not intend the list to imply endorsement of these specific references, nor are the exam questions necessarily taken solely from these sources.