




Saudi Radiologic Technologist Licensure Examination (SRTLE)

EXAMINATION CONTENT GUIDELINE



Note: Read this guide before submitting an application to test. At the time of application, you will be required to acknowledge that you have read and understood this guide and the policies and procedures contained within.

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Licensure Exam Overview

Licensure examinations are standardized tests that candidates must pass to obtain a license to practice health professions. The exams are designed to assess the ability to apply knowledge, concepts, and principles that constitute the basis of safe and effective health care.

Exam Structure

The SRTLE is conducted using computer-based testing. It is divided into two parts of 100 questions, each with a time allocation of 120 minutes for each part. It may include up to 10% of pilot questions. There is a scheduled 30-minute break between the two parts. The questions have four options from which the candidate will choose one best answer. The examination shall contain recall questions that test knowledge and questions with scenarios that test other skills (interpretation, analysis, decision-making, reasoning, and problem-solving).

Test	# of Test Block(s)	Duration of Each Block
SRTLE	2	120 min

Scoring System

The SCFHS conducted a rigorous standard-setting exercise with a diverse panel of Saudi radiologist technologists. Following the standard-setting exercise, the passing score was determined as 530 on the reporting scale of 200-800. This passing score was reviewed and approved by the Central Assessment Committee (CAC).

Results and Reports

Results are not provided instantly. During the window-closing period, psychometric analysis is conducted, and results are announced within 2-6 weeks of the end of a test window. Two reports will be provided to every candidate, a statement of results and a feedback report on performance compared to other test takers.

Application and Eligibility

To apply for the SRTLE, you must have an associate degree (or equivalent) from an accredited health science program or commenced training during the internship year or a student who is one year away from graduation.



Applying for the SRTLE

When applying for the examination, you must apply through the e-application. Once your application is processed, a scheduling permit with your eligibility period will be issued. You will receive an email with instructions for accessing your permit.

After obtaining the scheduling permit, you may visit the specified website to schedule a test date (Prometric). Scheduling may not be available for more than three months in advance. Refer to SCFHS for testing windows availability.

SRTLE Practice Examination

To experience a test that resembles the actual test blueprint and sampled from the SRTLE item bank, you can apply for SRTLE practice test from the SCFHS website. For more information, please visit the SCFHS website.

Important Instructions

What to Expect on Test Day?

- All test centers follow the same procedures and rules, which you should get familiar with before test day.
- Testing sessions for the Saudi Licensing Examinations are monitored by test center administrators (TCA) in person and through audio and visual recording. Staff are required to report any violations of assessment bylaws or test center rules.
- You must follow instructions from TCA throughout the examinations; failure to do so may result in a finding of irregular behavior.
- TCAs are not authorized to answer questions regarding registration, examination content or format, testing software, scoring, or retesting.

Registration on Test Day

SCFHS test centers open at 7:30 a.m. If you are late more than 30 minutes from the time noted on your admission ticket or absent on test day, you will not be allowed to sit for the test, and this will be considered an attempt unless an acceptable reason with required documentation is presented and accepted by the committee supervising the test as per the assessment rules and regulations.



- When you arrive at the test center, you must present your scheduling permit and the required identification. Acceptable forms of unexpired identification include:
 - Passport
 - National/Residence Identity Card (KSA Only)
- Your name, as it appears on your scheduling permit, must match the name on your form(s) of identification exactly.
- If you do not bring your scheduling permit on paper or electronically (e.g., via smartphone) and acceptable identification, you will not be admitted to the test and will be required to pay a fee to reschedule your test. Your rescheduled test date(s) must fall within your eligibility period.
- During check-in, test center staff will conduct the appropriate security check before entering the testing room to confirm that you have no prohibited items.
- You will be asked to repeat this process each time you return to the testing room after a break. Additionally, your photo ID and fingerprint may be scanned electronically, and you must sign the test center log.
- Before you enter the test room, TCA will give you laminated writing surfaces, erasers, and markers to use for making notes and/or calculations during the testing session. They should be used only at your assigned testing station.
- You must return laminated writing surfaces\tablets to test center staff at the end of the testing session. Do NOT write on anything other than the laminated writing surface\tablets (e.g., your hand, other body parts, tissue, etc.). Failure to comply may result in a finding of irregular behavior.
- TCA will escort you to your assigned testing station and provide brief instructions on using the computer equipment. A brief tutorial is available before each examination.
- Your test session is scheduled for a fixed amount of time, and the computer keeps track of the time allocated for each block and break.
- Once you begin a testing block, the block time continues to run even if you leave the testing room (e.g., for a personal emergency).
- If you leave during the block without permission from the test proctor, the test center will file a report of the incident. Additionally, the unauthorized break screen, described in the examination tutorial, will appear on the monitor after a defined period of inactivity.



Breaks between Test Blocks

- Each time you leave the testing room, you are required to sign out and sign in when you return. You must present your identification each time you sign in.
- If you take too much break time and exceed the allocated break time, the next test block will start automatically, and the excess time will be deducted from your testing time.
- Ensure you arrive 10-15 minutes before the start of your next block to allow time for sign-in as the signing process may take around 10 minutes based on testing capacity.
- Repeated or lengthy departures from the test room for unscheduled breaks will be reported by the TCA.

End of Test

- The test session ends when you have started and exited all blocks or the total test time expires. You will receive a notice during checkout that you have appeared for the test.
- After you start taking an examination, you cannot cancel or reschedule that examination. If you experience a computer issue during the test, notify the test center staff immediately. The testing software is designed to restart the test at the point that it was interrupted.
- You will maintain the confidentiality of the materials, including, but not limited to, the multiple-choice items. You will not reproduce or attempt to reproduce examination materials through recording, memorization, or by any other means.

Instructions for examination day

- Any clothing or jewelry items allowed to be worn in the test room must remain on your person at all times. Removed clothing or jewelry items must be stored in your locker.
- You must conduct yourself in a civil manner at all times when on the premises of the testing center.
- To protect the privacy of all testers, the TCA can neither confirm nor deny if any particular individual is present or scheduled at the test center.
- You must return all materials issued to you by the TCA at the end of your test.
- Persons not scheduled to take a test are not permitted to wait in the test center.

Notes

- Saudi university/college students can sit for SRTLE during the final year of undergraduate



studies.

- Scheduling the allowed test attempts during the year is the sole responsibility of the candidate.
- SCFHS is not responsible for delaying the test attempts until the end of the year and not finding a test spot.
- Candidates can test in any SCFHS approved Prometric testing center locally and internationally as locations appear upon scheduling.
- A candidate is not allowed to sit for the test twice in the same testing window. In this instance, the result of the first dated test will be announced, and the second will be considered an attempt and result invalid.
- All candidates must review the applicant guide before taking the test.
- All eligible candidates may take SRTLE up to four times a year, starting from the first attempt to obtain a pass score.
- SCFHS classification and registration rules and regulations apply to candidates who fail the SRTLE for two years after the graduation date.
- After obtaining a passing score in the SRTLE each candidate is eligible for two further attempts to improve their mark for the purpose of attaining a better opportunity for residency selection.

Prohibitions

Before the examination

- Seeking, providing, and/or obtaining unauthorized access to examination materials.
- Providing false information or making false statements on or in connection with application forms, scheduling permits, or other exam-related documents.
- Applying for an examination for which you are not eligible.

During the examination

- Taking an examination for someone or engaging someone to take an examination for you.
- Giving, receiving, or obtaining unauthorized assistance during the examination or attempting to do so.
- Making notes of any kind while in the secure areas of the test center, except on the writing materials provided at the test center for this purpose.
- Failing to adhere to any exam policy, procedure, or rule, including instructions of TCA.



- Verbal or physical harassment of test center staff or other examination staff or other disruptive or unprofessional behavior during the registration, scheduling, or examination process.
- Possessing any unauthorized materials, including photographic equipment, communication or recording devices, and cell phones, in the secure testing areas.
- Any other electronic communication device, not herein mentioned, are prohibited in the examination hall irrespective if they are turned off, and no provision will be made to store them.

After the examination

- Altering or misrepresenting examination scores.
- Any reproduction by any means, including, but not limited to, reconstruction through memorization and/or dissemination of copyrighted examination materials by any means, including the internet.
- Communicating or attempting to communicate about specific test items, cases, and/or answers with another examinee, potential examinee, or formal or informal test preparation group at any time before, during, or after an examination.
- Failure to cooperate fully in any investigation of a violation of the SCFHS rules.



SRTLE Blueprint

A test blueprint is a document that reflects the content of a specialty licensure examination and is the plan used for "building" the exam. The purpose of the blueprint is to ensure that questions related to what is expected to be known are included.

Section	Subsection	Competency The practitioner is expected to be able to do the following
Professional Practice 20%	Professional and Ethical Behavior	<p>Demonstrate professional appearance and manner.</p> <p>Practice with integrity and impartiality, adhering to organizational policies, and ensuring thorough and accurate documentation to support best practices.</p> <p>Show adaptability and professionalism in response to changes and challenges within the workplace to maintain a constructive environment.</p> <p>Respond and provide feedback to others in a manner that supports collaborative growth and positive workplace dynamics.</p> <p>Engage in reflective practice and stay updated on emerging trends and advancements to support personal and professional growth.</p>
	Communication and Interaction	<p>Interact with respect and maintain effective communication with colleagues and patients.</p> <p>Respect the dignity, religion, culture, privacy and autonomy of the patient.</p> <p>Provide complete information about procedures to patients/ relatives and verify understanding.</p> <p>Ensure ongoing informed consent to procedures.</p>
	Decision making	<p>Use the best practices, clinical information, and research to make evidence-based decisions.</p> <p>Take accountability for decisions made and actions taken, acknowledging their outcomes and implications.</p>
	Use of resources	<p>Prioritize workflow to enhance the quality of patient care.</p> <p>Optimize the allocation and utilization of available resources to maximize efficiency and operational effectiveness.</p> <p>Continuously monitor inventory levels of materials and supplies.</p>
	Research	<p>Demonstrate basic knowledge of research ethics.</p> <p>Critically appraise professional literature to assess relevance to practice.</p> <p>Participate in activities that require application of research methodology.</p>
Health and Safety 25%	Infection control and materials handling	<p>Employ routine and transmission-based infection control practices.</p> <p>Use aseptic and sterile techniques.</p> <p>Follow standardized procedures for handling and disposing of sharps, contaminated and biohazardous materials.</p>

	Patient safety	<p>Ensure a safe physical environment.</p> <p>Accurately verify and record patient identity, ensure proper documentation, and securely archive procedure-related information.</p> <p>Transfer and transport patients safely and utilize appropriate immobilization devices.</p> <p>Monitor and respond to changes in the patient's condition.</p> <p>Verify the patient's pregnancy status when applicable and respond appropriately.</p> <p>Follow standardized procedures to ensure the safety of patients with special needs/infectious diseases.</p>
	Self-protection	<p>Utilize personal protective equipment (PPE).</p> <p>Employ proper body mechanics/movements.</p> <p>Ensure a safe working environment.</p>
	Ionizing-radiation safety and education	<p>Apply the ALARA principle, using knowledge of radiation effects and risks.</p> <p>Understand the principles of radiation physics and measurement units.</p> <p>Recognize radiobiology principles.</p> <p>Implement best practices for minimizing radiation doses to both patients and healthcare providers.</p> <p>Understand the fundamental principles of classical and quantum physics.</p> <p>Provide comprehensive information on radiation risks and safety measures.</p>
	Non-ionizing-radiation safety and education	<p>Identify key safety parameters/indicators to ensure safe and effective imaging practices.</p> <p>Understand the fundamental principles of classical and quantum physics.</p> <p>Understand the principles of radiation physics and measurement units.</p> <p>Implement best practices for non-ionizing medical imaging modalities to ensure the safety of both patients and healthcare providers.</p> <p>Monitor potential biological effects associated with non-ionizing medical imaging modalities.</p>
Operation of Equipment 25%	Emergency procedures	<p>Identify system downtime protocols (such as PACS and RIS) and manual documentation processes.</p> <p>Recognize disaster preparedness protocols, including natural disasters, fire, equipment shutdown, and hospital codes.</p>
	Principles of imaging equipment	<p>Understand the physical principles of medical imaging instrumentation.</p> <p>Recognize the components of imaging equipment and their functions.</p>
	Image acquisition and management	<p>Operate imaging systems effectively to ensure high quality results.</p> <p>Apply proper imaging parameters' selection and optimization.</p> <p>Utilize common accessory equipment effectively to ensure high quality results.</p>



		Perform post-processing on acquired image dataset, if necessary.
	Quality Assurance	<p>Assess the performance of imaging equipment and accessories.</p> <p>Participate in quality assurance activities and programs to support organizational goals and standards.</p> <p>Apply risk management principles to identify, evaluate, and reduce potential issues that could affect patient safety and service quality.</p> <p>Perform reject analysis to identify and address the reasons for image rejection.</p>
	Image quality	<p>Apply principles that influence image quality to ensure optimal diagnostic outcomes.</p> <p>Verify visibility and accuracy of image annotations and patient demographics.</p> <p>Recognize image artifacts and apply corrective actions.</p>
Protocol Management 30%	Clinical principles	<p>Identify and differentiate anatomical structures on medical images and related physiology.</p> <p>Recognize various pathologies and their appearance on the image.</p> <p>Understand various indications/contraindication related to medical imaging procedures.</p> <p>Understand the patient preparation steps.</p>
	Patient assessment and care	<p>Ensure patient comfort and provide support throughout the procedure.</p> <p>Review the patient's medical history in relation to the requested protocols/procedures and identify any discrepancies.</p> <p>Provide post-procedure instructions clearly, ensuring the patient understands necessary follow-up care.</p> <p>Recognize and assess patient's vital signs.</p> <p>Recognize Basic Life Support (BLS) and accurately perform Cardiopulmonary Resuscitation (CPR).</p>
	Imaging procedures	<p>Perform and Optimize imaging protocols according to patient conditions, clinical indications, and anatomical structures.</p> <p>Apply proper patients positioning technique.</p> <p>Apply knowledge of pre and post procedures/protocols.</p>
	Pharmaceuticals	<p>Prepare and administer pharmaceutical agents according to the requested imaging protocols.</p> <p>Understand physical and chemical principles of pharmaceutical agents.</p> <p>Understand the various contraindications and possible reactions of pharmaceutical agents.</p>



Exam Sections' Description

Professional Practice

Covers the behaviors, interactions, and decision-making standards expected from professionals in healthcare settings. This includes ethical conduct, communication with patients and colleagues, informed decision-making, responsible resource usage, and engagement in research activities.

Health and Safety

Focuses on ensuring a safe clinical environment for both patients and healthcare providers. It includes protocols for infection control, proper material handling, patient safety practices, personal safety measures, and education on radiation and non-ionizing radiation risks.

Operation of Equipment

Involves the knowledge and technical skills required to handle, operate, and maintain imaging equipment safely and effectively. This section covers emergency protocols, understanding of equipment principles, image acquisition processes, quality assurance, and optimizing image quality.

Protocol Management

Encompasses the procedures and clinical principles necessary to prepare patients and carry out imaging protocols effectively. It includes knowledge of anatomy, pathology, patient care, preparation, safety procedures, and optimizing imaging based on individual patient needs.



References and Exam Preparation Resources

Sections	Textbooks
Professional Practice	<ul style="list-style-type: none"> ▪ Bontrager's Textbook of Radiographic Positioning and Related Anatomy, 9th Edition, John Lampignano, and Leslie E. Kendrick, Mosby Publisher, Philadelphia, PA, USA, 2017. ISBN 9780323399661 ▪ Bruce W. Long MS RT(R)(CV) FASRT (Author), Eugene D. Frank MA RT(R) FASRT FAEIRS (Author), Ruth Ann Ehrlich RT(R) (Author) ▪ Radiography Essentials for Limited Practice 5th Edition ISBN-13: 978-0323356237 ▪ Introduction to Radiologic and Imaging Sciences and Patient Care 6th Edition, Arlene M. Adler, Richard R. Carlton, Saunders Publisher, Philadelphia, PA, USA, 2015. ISBN 978-0323315791 ▪ Health Professions Council (HPC) Standards of Conduct, Performance and Ethics. ▪ London: HPC. Available at: https://www.hcpc-uk.org/standards/standards-of-conduct-performance-and-ethics/. Accessed November 20, 2019 ▪ Medical Ethics & Patient Care (Text book) ▪ Principles of Health Care Ethics (Text book) ▪ Code of Ethics for Healthcare Practitioners (by SCFHS)
Health and Safety	<ul style="list-style-type: none"> ▪ https://camrt-bpg.ca/index/ ▪ Sherer, M.S. Visconti,P.J., et al. "Radiation Protection in Medical radiography", 8th edition. Mosby, 2018 ISBN:978-0-323-44666-2 ▪ Torres, L.S. Dutton, A.G., Linn-Watson, T. "Patient care in Imaging Technology", 9th edition. Lippincott & Wilkins, 2018 ISBN 9781496378668 ▪ https://www.canada.ca/en/services/health/publications/health-risks-safety.html ▪ National & International Regulatory Bodies: <ul style="list-style-type: none"> ▪ SFDA ▪ National Commission of Nuclear and radiation commission ▪ CBAHI ▪ Patient safety authority ▪ MOH ▪ JCI ▪ Medical Ethics & Patient Care (Text book) ▪ Principles of Health Care Ethics (Text book) ▪ Code of Ethics for Healthcare Practitioners (by SCFHS) ▪ Shackett P. Nuclear medicine technology: Procedures and quick reference. Lippincott Williams & Wilkins; 2019 Aug 14. ▪ Physics in Nuclear Medicine, 4th Edition" by Simon R. Cherry, James A. Sorenson, and Michael E. ▪ Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine and Molecular Imaging E-Book: Essentials of Nuclear Medicine and Molecular Imaging E-Book. Elsevier Health Sciences; 2018 Aug 17.

Operation of Equipment

- Bontrager's- Textbook of Radiographic Positioning and Related Anatomy
- Gurley's- Introduction to Radiologic Technology)
- Bates'- Abdominal ultrasound- why how and when
- McRobbie D., Moore E., Graves M., and Prince M. (2018) - MRI from Picture to Proton
- Westbrook C., and Talbot J. - MRI in Practice
- Adler, Arlene, Carlton, Richard- Principles of Radiographic Imaging, an Art and a Science
- Seeram, E. (2023). Computed Tomography: Physical Principles, Clinical Applications, and Quality Control (6th ed.). Elsevier. [Contrast Timing and Bolus Tracking].
- Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine and Molecular Imaging E-Book: Essentials of Nuclear Medicine and Molecular Imaging E-Book. Elsevier Health Sciences; 2018 Aug 17.
- Christian, P.E. and Waterstram-Rich, K.M., 2013. Nuclear Medicine and PET/CT-E-Book: Nuclear Medicine and PET/CT-E-Book. Elsevier Health Sciences.
- Haaga, J. R., & Boll, D. T. (2020). Computed Tomography and Magnetic Resonance Imaging of the Whole Body (6th ed.). Elsevier. [Contrast Media and Renal Function].
- Bushong, S. C. (2021). Radiologic Science for Technologists: Physics, Biology, and Protection (12th ed.). Elsevier. [CT Artifacts and QA Procedures].

Protocol Management

- Romans, Lois E. Computed Tomography for Technologists
- Westbrook, Catherine, Handbook of MRI Technique
- Bernier's Nuclear Medicine: Technology and Techniques
- X-Ray Technician(Passbooks) (Career Examination Passbooks)
- Workbook for Merrill's Atlas of Radiographic Positioning and Procedures, 14th Edition.
- Computed Tomography for Technologists: Exam Review. Second Edition
- CT & MRI Pathology: A Pocket Atlas.
- Radiographic and Angiographic Procedures with an Introduction to Specialized Imaging. FA Davis
- Nuclear Medicine Technology: Procedures and Quick Reference. Pete Shackett.Third Edition, 2019
- Steves' Review of Nuclear Medicine Technology: Preparation for Certification
- Examinations. Norman E. Bolus. 4th Edition, 2011
- Abdominal Ultrasound: step by step. Berthold block. 3rd edition
- Abdominal and small parts sonography: A comprehensive study. By RT Barbara
- MRI in Practice, Catherine Westbrook
- Handbook of MRI Technique
- Patient Care in Radiography: With an Introduction to Medical Imaging
- Comprehensive Radiographic Pathology
- Medical Ethics & Patient Care (Text book)
- Principles of Health Care Ethics (Text book)

- Code of Ethics for Healthcare Practitioners (by SCFHS)
- Mettler FA, Guiberteau MJ. Essentials of Nuclear Medicine and Molecular Imaging E-Book: Essentials of Nuclear Medicine and Molecular Imaging E-Book. Elsevier Health Sciences; 2018 Aug 17.
- Nuclear Medicine Technology: Review Questions for the Board Examinations 5th edition.

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 from these sources.

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