



RADIOGRAPHY



CERTIFICATION HANDBOOK

and

APPLICATION MATERIALS

Policies, procedures, and information in this

2009

handbook supersede previous editions

Ethics + Education + Examination = The ARRT Equation for Excellence



The American Registry of Radiologic Technologists®

1255 Northland Drive
St. Paul MN 55120-1155
Phone (651) 687-0048

www.arrt.org

How to Use This Handbook



Not a First-Time Candidate?

If you have re-applied for certification and your application has been processed, your Candidate Status Report is enclosed with this handbook. This 2009 ARRT Certification Handbook provides you with current information. Please carefully review this handbook to ensure that you are familiar with current test administration procedures and test center admission requirements. (NOTE: Two forms of ID are required; see page 16 for details.)

This *Certification Handbook* is designed to help candidates understand, and to apply and prepare for, the certification process. (If you are *not* a first-time candidate, please see the box at left.) To ensure that you are as successful as possible, you will want to read the following information very carefully and keep the handbook for future reference.

In these pages, you will find...

- Introduction and background material on ARRT and its certification programs
- Details on important eligibility requirements for certification candidates
- An outline of the topics covered in the exam*
- Step-by-step instructions on applying for and scheduling your exam
- Tips on the exam format
- Test center requirements and procedures
- Information on what happens after you complete the exam
- Important appendices like *ARRT Rules and Regulations*, *Standards of Ethics*, and *Continuing Education Requirements for Renewal of Registration*
- Application form and checklist.

* ARRT does NOT provide study materials for any certification or state licensing exams.

The information in this handbook supersedes that in any prior publications of ARRT. Earlier versions may contain outdated information. ARRT takes care to ensure that candidates receive handbooks that correspond to the year of potential exam date. Candidates who apply with an old application or whose exam window crosses over from one year to the next will receive a current handbook from ARRT.

Watch for
These Symbols



This exclamation point is your pointer to key pieces of information you need to know.



This icon tips you to ways you can streamline your journey through the certification process and beyond.

NCCA Accreditation

ARRT's Radiography, Nuclear Medicine Technology, Radiation Therapy, Sonography, and Registered Radiologist Assistant certification programs have earned accreditation by the National Commission for Certifying Agencies (NCCA), the accrediting body of the National Organization for Competency Assurance (NOCA).

To receive NCCA accreditation, ARRT demonstrated that this certification program met strict standards in accordance with NOCA's mission to promote excellence in competency assurance for practitioners in all occupations and professions.

For more information on NOCA/NCCA and their accreditation programs, visit them on the Internet at www.noca.org.

It is ARRT's policy not to discriminate against any candidate for certification because of race, color, religion, creed, age, gender, national origin, or ancestry.

The American Registry of Radiologic Technologists®

1255 Northland Drive, St. Paul, Minnesota 55120-1155

Telephone (651) 687-0048

Visit our website at www.arrrt.org

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Introducing ARRT[®]



ARRT — The American Registry of Radiologic Technologists[®] — promotes high standards of patient care by recognizing qualified individuals in medical imaging, interventional procedures, and radiation therapy.

Eight Decades of History

The year was 1922. The Lincoln Memorial was dedicated on May 30. A first-class postage stamp cost 2 cents. Insulin was the revolutionary new treatment for diabetes.

And Sister M. Beatrice Merrigan took her Radiography Exam on November 17. The test included 20 essay questions and a prescribed set of radiographs. She was notified of her certification the day after Christmas, when she earned the distinction of being the country's first Registered Technologist.

We were the Registry — founded earlier that year by the Radiological Society of North America, with support of the American Roentgen Ray Society and the American Society of X-Ray Technicians.

The Registry was incorporated in 1936 as the American Registry of X-Ray Technicians. Its board was appointed by the Radiological Society of North America and the American Society of X-Ray Technicians. By the end of the decade, there would be more than 2,400 Registered Technologists.

In 1944, the American College of Radiology assumed the responsibility of appointing board members along with the American Society of Radiologic Technologists.

Forty years after its founding, the Registry expanded its program of examination and certification by adding exams in nuclear medicine technology and radiation therapy. At that time, the organization's name changed to The American Registry of Radiologic Technologists, a name more inclusive of all three disciplines of certification. By the end of the 1960s, ARRT would boast a total of 56,000 certificates — some 700 in nuclear medicine technology and nearly 300 in radiation therapy.

The decade of the '90s saw a sweeping expansion of ARRT's offerings. The new post-primary discipline was launched with certification in cardiovascular-interventional technology and mammography. New modalities were added as technology emerged. As the millennium ended, ARRT had converted all of its exams from paper-and-pencil to computer-based testing.

Nearly nine decades after its founding, more than a quarter of a million Registered Technologists, known as R.T.s, attest to the success and strength of The American Registry of Radiologic Technologists.

Sister Beatrice was first. Now it's your turn.

Organizational Structure

A nine-member Board of Trustees determines ARRT policies. The Board is composed of five Registered Technologists appointed by the American Society of Radiologic Technologists and four radiologists appointed by the American College of Radiology. Board members are selected to serve four-year terms, a new appointment from each group being made each year. Meetings of the Board of Trustees are held semiannually. The Board is supported by a staff that conducts the routine business of the Registry.

Mission-Driven

The mission of The American Registry of Radiologic Technologists is to promote high standards of patient care by recognizing qualified individuals in medical imaging, interventional procedures, and radiation therapy. The modalities of interest include, but are not necessarily limited to, radiography, nuclear medicine technology, radiation therapy, sonography, magnetic resonance imaging, mammography, computed tomography, quality management, bone densitometry, cardiac-interventional

radiography, vascular-interventional radiography, cardiovascular-interventional radiography, vascular sonography, and breast sonography. ARRT also offers certification for radiologist assistants.

In support of this mission, ARRT:

- adopts and upholds standards for educational preparation for entry into the profession;
- adopts and upholds standards of professional behavior consistent with the level of responsibility required by professional practice; and
- develops and administers examinations that assess the knowledge and skills underlying the intelligent performance of the tasks typically required by professional practice in the modality.

In addition to initial recognition, ARRT operates an ongoing system of annual registration to identify individuals who continue to demonstrate their qualifications by adhering to the standards of professional behavior and complying with continuing education requirements.

The activities of the organization are primarily national in scope, but include international activities to the extent they impact practice or standards in the United States.

Two Pathways to Certification: Primary and Post-Primary

Primary

ARRT provides a primary pathway to certification in five disciplines of radiologic technology:

Radiography

Radiographers apply ionizing radiation to demonstrate portions of the human body — on a radiograph, fluoroscopic screen, or other imaging system — to assist physicians in diagnosis of disease and injury.

Nuclear Medicine Technology

Nuclear medicine technologists use radioactive materials in specialized studies of body organs to assist physicians in diagnosis and treatment of disease.

Radiation Therapy

Radiation therapists use ionizing-radiation producing equipment to administer therapeutic doses of radiation as prescribed by physicians for treatment of disease.

Sonography

Sonographers use nonionizing, high-frequency sound waves to image portions of the human body to assist physicians in making diagnoses.

Magnetic Resonance Imaging

Magnetic resonance technologists utilize the resonant frequency properties of atoms within a magnetic field to image anatomic and/or physiologic conditions of the body to assist physicians in the diagnosis and treatment of disease.

Post-Primary

ARRT offers a post-primary pathway to certification in mammography, computed tomography, magnetic resonance imaging, quality management, bone densitometry, cardiac-interventional radiography, vascular-interventional radiography, sonography, vascular sonography, and breast sonography. ARRT also offers certification for radiologist assistants.

Candidates for post-primary certification must be registered by ARRT (except where noted) in the appropriate disciplines as indicated below:

	Radiography is a supporting discipline for	Nuclear Medicine Technology* is a supporting discipline for	Radiation Therapy is a supporting discipline for	Sonography** is a supporting discipline for	Magnetic Resonance Imaging is NOT a supporting discipline for other certifications
Mammography	■				
Computed Tomography	■	■	■		
Magnetic Resonance Imaging	■	■	■	■	
Quality Management	■	■	■		
Bone Densitometry	■	■	■		
Cardiac-Interventional Radiography	■				
Vascular-Interventional Radiography	■				
Sonography	■	■	■	■	
Vascular Sonography	■	■	■	■	
Breast Sonography***	■			■	
Radiologist Assistant	■				

* Supporting discipline of NMT may be through ARRT or NMTCB.

** Supporting discipline of Sonography may be through ARRT or ARDMS.

*** Mammography also serves as a supporting discipline for Breast Sonography.

Certification Eligibility Requirements



Eligibility for certification in ARRT primary disciplines includes requirements in three important areas: ethics, education, and examination.

TIP

Concerned About Ethics Eligibility? File A Pre-application Review

If a candidate is concerned about whether his or her conviction record will affect eligibility, there is a way to find out before beginning his or her educational program.

ARRT investigates all potential violations in order to determine eligibility, and such investigations can cause delays in processing applications. Candidates can avoid delay by requesting a pre-application review of the violation before or during their education, rather than waiting until completing the educational program. (Candidates who anticipate graduating within six months should use the Application for Certification rather than the pre-application form.) ARRT will rule on the impact of the violation on eligibility for ARRT certification. Once ethics eligibility is established, the candidate proceeds with application.

The pre-application review form is downloadable from the "Ethics" section of our www.arrt.org website, or you may request a copy by phoning ARRT at (651) 687-0048, ext. 8580.

Additional information may be found in the ARRT Rules and Regulations (Appendix H) and in the ARRT Standards of Ethics (Appendix I).

Ethics

Our pledge to promote high standards of patient care includes enforcing high standards of ethics among Registered Technologists — and among candidates for certification. All candidates must comply with the Rules of Ethics contained in the *ARRT Standards of Ethics* (Appendix I).

The Rules of Ethics are standards of minimally acceptable professional conduct for all Registered Technologists and candidates. The Rules are intended to promote the protection, safety, and comfort of patients. Registered Technologists and candidates engaging in any of the conduct or activities noted in the Rules of Ethics, or who permit the occurrence of such conduct or activities, have violated the Rules of Ethics and are subject to sanctions.

One issue addressed by the Rules of Ethics is conviction of a crime — which includes felony, gross misdemeanor, or misdemeanor, the only exceptions being speeding and parking violations. All alcohol and/or drug related violations must be reported. "Conviction," as used in this provision, includes: a criminal proceeding where a finding or verdict of guilt is made or returned but the adjudication of guilt is either withheld, deferred, or not entered; or the sentence is suspended or stayed; or a criminal proceeding where the individual enters a plea of guilty or *nolo contendere* (no contest); or there is a pretrial diversion.

Candidates aren't required to report offenses that were committed as a juvenile and were adjudicated through the juvenile court system.

The Application for Certification asks: "Have you ever been convicted of a misdemeanor or felony?" If your answer is "No," you move on to the next question. Anyone who answers "Yes" must provide a detailed explanation and official court documentation of the charges. Court documentation must verify the nature of the conviction, the sentence imposed by the courts, and the current status of the sentence.

The Rules of Ethics also address military court-martials that involve substance abuse, sex-related infractions, or patient-related infractions. Candidates with court-martials must provide a detailed personal explanation, documentation verifying the reasons for the court-martial, the conditions of the sentence, and the status of the sentence.

The certification application also asks students to respond to a question about violations or sanctions related to the academic honor code. Applicants must also sign a written consent under Family Educational Rights and Privacy Act (FERPA). This consent allows the student to communicate freely and openly with their program director and allows ARRT to obtain specific parts of the student's educational records concerning violations of an academic honor code.

Education

To be eligible for ARRT primary certification, candidates must have — within the past five years — successfully completed a program of formal education that is accredited by a mechanism acceptable to ARRT.

Candidates for certification in Radiography, Nuclear Medicine Technology, or Radiation Therapy, or as a radiologist assistant, must have completed an educational program in that discipline.

Candidates for certification in Sonography or Magnetic Resonance Imaging must have either completed an ARRT-recognized educational program in that discipline or met the discipline's post-primary eligibility requirements.

In the U.S., ARRT-recognized programs are those accredited by one of the following:

- Joint Review Committee on Education in Radiologic Technology (JRCERT) — for radiography, radiation therapy, and magnetic resonance imaging;
- Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) — for nuclear medicine technology;
- Joint Review Committee on Education in Diagnostic Medical Sonography (JRC-DMS) [through the Commission on Accreditation of Allied Health Education Programs, CAAHEP] — for sonography; or
- the six regional accrediting organizations' divisions that accredit degree-granting institutions — for radiography, nuclear medicine technology, radiation therapy, sonography, and magnetic resonance imaging.

Outside the U.S., ARRT-recognized programs are those accredited by one of the following:

- Conjoint Accreditation Services of the Canadian Medical Association, or
- Australian Institute of Radiography.

Details on ARRT-accepted accreditation mechanisms appear in Appendix A.

Information on recognition of radiologist assistant programs appears under "Registered Radiologist Assistant" at www.arrt.org.

The U.S. military also offers accredited programs: radiography by the Army and Air Force, radiography and nuclear medicine technology by the Navy. Completing all requirements of these programs qualifies as educational eligibility for ARRT certification. Those who did not satisfy all "follow-on" training requirements for one of these programs must enroll in and graduate from an educational program accredited by a mechanism acceptable to ARRT. Individuals educated in the U.S. military should review Appendix B of this handbook for further information.

Candidates for ARRT primary certification must, as part of their educational programs, demonstrate competency in didactic coursework and an ARRT-specified list of clinical procedures. Satisfaction of that requirement must be indicated by the signature of the program director (and, if required, authorized faculty member) on each candidate's application for certification.

Each primary certification discipline has its own set of competencies. Details on the competency requirements appear in Appendix C.

Candidates who completed an accredited educational program on or before December 31, 2003, have exceeded the five-year time limit to apply for certification. They will have to re-qualify by once again meeting all the education, ethics, and examination requirements for certification eligibility. Call ARRT at (651) 687-0048, ext. 8560, for more information.

Examination

ARRT designs examinations in collaboration with consultants from various specialties. The primary exams consist of questions designed to measure the knowledge and cognitive skills underlying the performance of the major tasks typically required within the profession.

Consult the content specifications in Appendix D of this handbook for the list of topics covered by the examination. ARRT doesn't provide specific lists of study materials or textbooks because the exams are built using many references. ARRT neither recommends nor endorses any review programs, mock registries, or study guides for any of its examinations.

ARRT owns the copyright for the examinations. Law prohibits any attempt to reproduce all or part of the examinations. Anyone caught removing exam materials from the test center, whether by physical removal or by reproducing materials from memory, will be prosecuted to the full extent of the law and will have eligibility for certification revoked.

(continued on next page)

The Five-Year Limit For Eligibility

Candidates establish eligibility for ARRT certification through the following stages: 1) submitting appropriate application form and fee, 2) undergoing an Ethics review if necessary, 3) completing the application process, and 4) receiving an assigned examination window in the form of a Candidate Status Report.

If you answer "Yes" on the application form to the question regarding misdemeanor or felony charges or convictions, you must submit documents for an Ethics review. ARRT cannot assign an exam window until the Ethics review determines your eligibility to take the exam.

Candidates who require an Ethics review must bear in mind that their five-year eligibility time frame needs to accommodate the review. In other words, they should submit their application at the earliest possible time, so ARRT can complete the review and the candidate can complete the application process within the five-year time frame.

If you are not determined eligible within those five years, you must re-qualify by meeting the initial requirements of eligibility for the discipline in which you are applying for certification. "Re-qualify" means that you must complete the necessary educational requirements and demonstrate clinical competency (see page 25 for more information.)

Application Procedures



Before filling in the form, writing a check, and mailing the envelope, take a moment to review the requirements for getting your certification application accepted by ARRT.

▼ **Application Form,** ● **ID Names Must Match**

Make sure the name you enter on your application form matches the names on the IDs you will use for entry at the test center. Nicknames are not acceptable. Name discrepancies can result in your not being admitted to the test center — and forfeiting your application fee. (The only discrepancy that is permitted is a full middle name that starts with the same middle initial that is on your ARRT file.)

▼ **Six-Month Limit on** ● **Photo and Signatures**

Please note that all photos, signatures, and dates of signatures on an application form must occur within six months preceding the date your application is received at the ARRT office.

Pilot Questions

Pilot questions are unscored questions embedded in the test. ARRT uses data from these pilot questions to evaluate new test questions. This is a cost-effective way to develop test materials for future candidates, just as past candidates assisted in piloting questions for today.

These questions are not identified as pilot questions, and they appear just like any other question on the test. Up to 20 questions on your test may be unscored, and ARRT allots extra time for you to complete these questions. Your answers to these questions will not affect test scores.

Agreement of Candidates

All candidates for certification must — at the time of their application and annually thereafter when renewing registration — pledge to abide by the Agreement of Candidates included in Article III, Section 3.02 of the *ARRT Rules and Regulations*. Candidates should read and be familiar with the *ARRT Rules and Regulations*, included as Appendix H of this handbook, prior to signing and submitting an application.

Application Form

A sample application form is located at the back of this handbook. For a hardcopy, contact your program director, or direct your request to ARRT Customer Service by phoning (651) 687-0048, ext. 8560; or by writing to ARRT at 1255 Northland Dr., St. Paul, MN 55120-1155.

Photo Requirements

Each candidate must tape a passport-quality photograph of himself or herself to the application form. A template for an acceptable photo is shown below.

ARRT defines a passport-quality photograph as an original photograph, taken within the past six months, that is approximately 2 inches by 2 inches in size, with an approximate image size from bottom of chin to top of head (including hair) of between 1 and 1½ inches, showing only the head and shoulders.

Photographs must be clear, front view, full face, and taken in normal street attire or hospital uniform. The photograph may be black-and-white or color and must provide clear recognition of the candidate. Photographs are acceptable only if, in ARRT's sole determination, they are of satisfactory quality.

ARRT will reject photographs that mask appearance (with hats, visors, or sunglasses that would shade the eyes, etc.). Retouched photographs that alter an Individual's appearance are not permitted. Photocopies of photographs, laminated ID card photos, pictures cut off a driver's license, and magazine or full-length prints will not be accepted.

For more information on passport photo guidelines, go online to www.travel.state.gov.

