This handbook provides important information for persons planning to take the ARRT-administered examination for the purpose of state licensing in Limited Scope of Practice in Radiography.

EXAMINATION HANDBOOK
for State Licensing Exams Administered in 2016
for Limited Scope of Practice in Radiography

Policies, procedures, and information in this handbook supersede previous editions. Please review this information carefully; you are responsible for understanding the contents of this handbook. Direct questions and/or correspondence to the state agency with which you applied for licensing.

| Important Notice: State Licensing is Not ARRT Credentialing | The American Registry of Radiologic Technologists does not certify and register individuals based upon the results of the Examination for Limited Scope of Practice in Radiography. ARRT administers this examination solely for use by state agencies. |
How to Use This Handbook

This Examination Handbook is designed to help state licensing candidates understand and prepare for the examination. It is published for each calendar year, but changes to policy or procedures may occur during the year, so be sure to check www.staterhc.org for updates. To ensure that your exam experience is 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...
- Instructions on scheduling your exam.
- An outline of the topics covered in the exam.*
- Tips on the exam format.
- Test center requirements and procedures.
- Information on what happens after you complete the exam.

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

The information in this handbook supersedes that in any prior publications of the ARRT. Earlier versions may contain outdated information. It is the candidate’s responsibility to obtain a handbook corresponding to the year in which the examination is to be taken, as noted on the front cover of the handbook.

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State Licensing vs. ARRT Credentialing

State examinations for limited x-ray machine operator licensing are administered by The American Registry of Radiologic Technologists® on behalf of your state licensing agency, but state licensing is not ARRT credentialing.

More than three-quarters of states have licensing laws covering the practice of radiologic technology. Although The American Registry of Radiologic Technologists® (ARRT®) certification and registration examinations are voluntary, many states use ARRT scores in licensing decisions.

Application to take an examination for ARRT certification and registration must be made directly to ARRT and you must have met all other criteria for ARRT certification and registration. Under no circumstances does application to your state licensing agency constitute application to ARRT for certification and registration. In general, ARRT and the state follow separate application procedures.

If you are assigned an ID number beginning with a nine (9XXXXX) and have a Candidate Status Report with red print, you are scheduled to take only the Limited Scope of Practice in Radiography examination as a state-approved candidate.

Administration of state licensing laws differs from state to state. Direct any questions about licensing requirements to your state licensing agency. ARRT is unable to respond to questions regarding licensing requirements of specific states. See Appendix F for a list of state licensing agencies.

Upholding Exam Security

ARRT takes very seriously its responsibility for exam security... so much so that candidates are held responsible, too. Not upholding your end of the deal could expose you to an ARRT investigation and/or legal action.

Why Does Security Matter So Much?

It's a matter of public health.

Security is critical to ensuring that the examination is an accurate and reliable measure of the critical knowledge and cognitive skills underlying the tasks typically required for the practice of medical imaging, interventional procedures, and radiation therapy. In fact, subverting the integrity of ARRT's exams is illegal, based on a Minnesota law that went into effect on August 1, 2010. More information can be found by visiting www.staterhc.org.

Ask yourself: Would you want a loved one to receive care from an individual who “passed” the ARRT-administered exam because they got a sneak peek at questions and memorized the answers rather than having learned all the critical content that the questions scientifically sample?

Disclosing Exam Information: The Bright Line Between What’s OK and What’s Not

Candidates for state licensing and/or permit examinations see language in the ARRT state licensing examination handbooks, as well as the non-disclosure screens at the test center that clarify what they are agreeing to comply with regarding exam security. This language is reproduced in the box on page 14.

Not living up to these agreements can result in an ARRT investigation which may lead up to the invalidation of the results of the current and any prior examinations. This could also permanently bar the candidate from all future exams as well as result in the notification to the appropriate state licensing agency. Violating these agreements could also lead to legal action. See Appendix G for a list of potential exam disclosure scenarios.
Before the Examination

Familiarize yourself with the exam procedures in this handbook and on your CSR before scheduling your exam at any of the hundreds of test centers across the U.S. and internationally.

Examination

ARRT designs examinations in collaboration with content experts from various specialties. The 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 A of this handbook for the list of topics covered by the examination. ARRT does not 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. See the “Upholding Exam Security” section on the previous page for more information.

Candidate Status Report (CSR)

ARRT will mail you a Candidate Status Report (CSR) (see Appendix E for sample) after your examination fee is processed at the ARRT. The CSR contains your identification information, your permanent six-digit ARRT ID number, and examination window dates. Be sure your name on the CSR matches your IDs that you will bring for admission to the test center (see “Acceptable Forms of ID” on page 10). Notify your state immediately and before scheduling an exam appointment if any identification information is incorrect or does not match your IDs. Please do not contact ARRT with identification changes.

If the modules listed on your CSR do not match the modules that you think you should be taking, notify your state licensing agency (see Appendix F) — not ARRT — immediately, and before scheduling an exam appointment.

ARRT cannot make changes to your limited scope modules without official notification from your state licensing agency. It is your responsibility to verify that your state licensing agency has assigned the correct modules for your exam.

Do not schedule your exam appointment until you receive a new CSR and verify that the information is correct. You may then proceed to schedule your exam appointment. Your 90-day exam window shows the dates during which you may take the exam. After your window expires, your CSR is no longer valid, and your fee is forfeited.

If you lose your CSR, please contact the ARRT and a duplicate will be mailed to you. If you do not receive your exam information within the anticipated processing time of four weeks, contact your state licensing agency to verify they have approved your application for examination and have forwarded your exam eligibility to the ARRT.

Help Us Protect Exam Security

If you know of any situations in which the security of ARRT exam materials might be compromised, we invite you to visit www.staterhc.org.
ARRT 90-Day Examination Window

ARRT will assign you a 90-day exam window. You should schedule your exam appointment for a date within the 90-day exam window printed on your CSR. Generally, examination windows begin on the Wednesday after the application is processed (not received) at ARRT and extend for 90 calendar days. For example, if an application is processed on Thursday, April 14, 2016, the examination window will begin on Wednesday, April 20, 2016, and end on Monday, July 18, 2016.

Your window will close automatically after 90 calendar days, or if you miss an appointment, an appointment is not canceled in time, or you fail to comply with the non-disclosure agreement at the test center (see page 14). To open a new exam window, you would have to re-apply through your state licensing agency and pay a new exam fee.

Test Centers

ARRT examinations are administered by Pearson VUE, the electronic testing business of Pearson Education. Their network of more than 200 high-security test centers is specifically designed and built for professional licensure and certification markets in the U.S. and its territories. Their international test centers are equipped to deliver ARRT exams in selected cities in Canada, Europe, Asia, and Australia.

A geographic list of test center locations appears in Appendix D of this handbook, but please keep in mind that location changes may occur after publication. Current test center locations and driving directions may be viewed at www.staterhc.org.

Testing Accommodations

If you require any modification of standard testing procedures as outlined in this handbook, you must submit to ARRT a Request for Testing Accommodations. This requirement applies to any disability accommodation, including requests to use medical aids such as insulin pumps, pico magnifiers, lumbar pillows, asthma inhalers, etc.

ARRT complies with the Americans with Disabilities Act (ADA) and provides testing accommodations if ARRT determines that the ADA requirements are met. To be considered for testing accommodations, you are required to submit a completed Request for Testing Accommodations form to ARRT as soon as possible — and before scheduling your exam appointment. The request form can be found at www.staterhc.org.

In addition, you must submit original documentation from a licensed professional verifying your functional impairment. Copies are not accepted. Requests for testing accommodations will not be considered without this documentation or if an exam appointment has been scheduled. Guidelines on the required documentation may also be found at www.staterhc.org.

You must submit a Request for Testing Accommodations form each time a future examination request has been processed; the supporting documentation is required only once. If you do not submit a request form with each future examination request, you will be processed for examination without testing accommodations.

Call ARRT at (651) 687-0048, ext. 3155, if you are unable to download the information from the website or if you require further information on testing accommodations.

ARRT will release information in writing and only to you regarding the granting or denial of accommodations and will discuss your information with you only.

Address or Name Changes

Notify your state licensing agency — not ARRT — immediately of any changes to your name or address as submitted on your application form. Changes cannot be processed by ARRT, the Pearson VUE Call Center or at the test center.
The Exam Appointment

Once you receive your Limited Scope Candidate Status Report from ARRT and confirm all of the information is correct, you’re ready to schedule your appointment.

Scheduling Your Appointment

Pearson VUE schedules appointments on a first-come, first-served basis. As soon as you receive your CSR, you may schedule your appointment one of two ways:

• call the Pearson VUE Call Center at the toll-free phone number shown on the back of your CSR (Monday–Friday, 7 a.m.–7 p.m. Central Time); or
• online at www.pearsonvue.com/arrt (see “tip” below for details).

(continued on next page)
Follow-Up and Confirm

Your Exam Appointment

You are responsible for confirming the date, time, and location of your exam with Pearson VUE. If you don’t receive a confirmation within two days of scheduling, contact the Pearson VUE Call Center to confirm over the phone and request that a duplicate confirmation letter be sent. If your appointment is scheduled for less than five days out, call Pearson VUE for confirmation the day after you make the appointment.

This applies to appointments scheduled via the Call Center as well as those scheduled through the Internet.

TIP

Calling to Reschedule? Remember to Cancel

Just because a candidate calls to reschedule a testing appointment doesn’t necessarily mean that the initial appointment is automatically canceled. And an uncanceled appointment is the candidate’s responsibility, potentially resulting in forfeiting the application fee.

If you call Pearson VUE intending to reschedule a testing appointment, your initial appointment will remain in effect until you formally approve a new appointment date/time. If you can’t find an appropriate alternative appointment and plan to call back later, your initial appointment will still be on the books.

Play it safe when changing your appointment. Be sure to specifically request that the initial appointment is canceled. The next day, call Pearson VUE to confirm that the appointment was canceled.

Even if you don’t want to take your exam immediately, it’s better to schedule early to obtain your choice of exam date. If you delay too long in scheduling your examination, you may not find an available appointment prior to your expiration date. If your window is allowed to expire, you must re-apply with your state licensing agency. (See “Extending an Exam Window” on previous page.)

You will be providing and receiving a great deal of important information when scheduling your appointment with Pearson VUE. It is your responsibility to manage that information each step along the way.

Have Your Information Available

Have your CSR at hand when going online or calling to schedule. You cannot schedule a testing appointment until you receive your CSR. You will be able to select a test center from those in Appendix D or on the Pearson VUE website.

When calling to schedule your appointment, you will be asked to verify your name as listed on your current CSR, address, and other identifying information and to provide your ID number, which is listed on your CSR. (ARRT does not provide ID numbers over the phone.) Calls may be recorded for quality assurance purposes.

Pearson VUE Call Center staff will help you schedule a date and time for testing. Test centers are generally open Monday through Friday between the hours of 8 a.m. and 6 p.m. Some test centers offer extended evening or weekend hours.

NOTE: Call Center staff cannot make changes (except adding email and phone info) to the application information you provided to your state and to ARRT. Resolve any discrepancies in name or address with your state licensing agency before you schedule your appointment.

Confirm Your Scheduling Information

Space is provided on the back of your CSR for you to write the date, time, confirmation number, test center location and name of the Call Center representative. Pearson VUE will email or send by U.S. Postal Service (when an email address is not provided) a letter confirming the appointment. The letter will include the address, phone number, and directions to the test center, as well as the name, date and time of your exam and other important information. Driving directions are also available at www.pearsonvue.com/arrt.

NOTE: Occasionally the email confirmation may be filtered into a SPAM folder based on the security settings of your email account. Be aware that the email confirmation comes from PearsonVUEconfirmation@pearson.com. If you do not receive an email confirmation from VUE within two days, check your filter settings and/or contact the VUE Call Center to confirm your email address on file and your appointment date and time, and request that a new confirmation email be sent.

ARRT and your state licensing agency are not able to confirm exam dates, times or locations for your examination, nor can they provide driving directions to test centers.

Missing Your Appointment

If you fail to keep your appointment or fail to reschedule it as detailed in the next section, you are required to forfeit your examination fees. Neither ARRT nor your state licensing agency are responsible for appointment time discrepancies between you and the test center.

Canceling or Rescheduling Your Appointment

You may cancel or reschedule an appointment up to 24 hours (one business day) prior to the scheduled appointment — either by phoning (800) 632-9055 (leaving a message on an answering machine is not acceptable) or by visiting www.pearsonvue.com/arrt (be sure to follow the prompts to complete the process). If you make a new appointment, follow up by phoning the Call Center to confirm it (see box above). Pearson VUE will send you an email confirmation each time an appointment is made, changed, or canceled. If you do not receive a confirmation,
Contact Pearson VUE the next day to confirm the transaction. Pearson VUE will charge a $10 fee for exam appointments that are canceled or rescheduled. Pearson VUE will collect fees by credit card payment (American Express, MasterCard or Visa) at the time the appointment is canceled or rescheduled. This includes all changes made online or via the Pearson VUE Call Center.

The table below shows that appointments for a given time on the scheduled exam day must be canceled by that same time on the preceding business day:

<table>
<thead>
<tr>
<th>Scheduled Exam Day</th>
<th>Cancel/Change Deadline (same time as appointment)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Friday of the preceding week</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Monday of the same week</td>
</tr>
<tr>
<td>Wednesday</td>
<td>Tuesday of the same week</td>
</tr>
<tr>
<td>Thursday</td>
<td>Wednesday of the same week</td>
</tr>
<tr>
<td>Friday</td>
<td>Thursday of the same week</td>
</tr>
<tr>
<td>Saturday</td>
<td>Friday of the same week</td>
</tr>
</tbody>
</table>

For example, if you are scheduled to test at 9 a.m. on Monday, you must call by 9 a.m. on Friday to cancel your appointment. VUE will follow-up with a confirmation email detailing your cancellation or appointment change information.

NOTE: National holidays and weekends are not considered business days.

If you fail to appear for your scheduled appointment and do not reschedule through the procedure above, you will forfeit your examination fee. Neither ARRT, Pearson VUE, nor your state licensing agency are responsible for appointment errors. ARRT does not grant exceptions for missed appointments under any circumstances.

Exam Administration Day
Here’s a preview of what you’ll encounter when you open the test center’s front door on the day of your state licensing exam appointment.

What to Expect on Exam Day

Check out the “What to Expect on Exam Day” video at www.arrt.org/videos to familiarize yourself with the process. NOTE: You will not see a preliminary score after your exam as depicted in the video.

Test Center Environment

Pearson VUE test centers provide computerized testing for many organizations. Be aware that other tests may be administered in the test center at the same time as ARRT examinations.

Most test centers are located in buildings comprised of several other offices. Waiting areas at the test centers are small. Friends, relatives or children will not be permitted to wait in the test center or to contact you during your examination.

Test center personnel try to maintain a comfortable temperature in the testing rooms. In spite of these efforts, the room may be too cool or too warm for an individual’s preference, so dress accordingly. Be aware that outerwear (e.g., overcoat, windbreaker, jacket, etc.) is not allowed in the testing room; however, clothing typically worn indoors (e.g., sweater, sweatshirt without a hood, blazer, etc.) is allowed.

Keep in mind that there will be other people at the test center taking exams, so typing, coughing and/or people entering and leaving the testing room may be heard. It is impossible to provide a completely noise-free test environment. If you feel these distractions may be disruptive to your testing, be sure to request earplugs before beginning your exam. Noise reduction headphones can also be provided.
Follow Procedures

Test center personnel adhere to designated procedures to ensure that their operations meet ARRT criteria for standardized testing. Review the following information before the examination to become familiar with the procedures.

Arrive Early

Having already confirmed the location of the test center, plan your schedule and route to ensure that you arrive at least 30 minutes before your scheduled appointment, to allow time for check-in procedures. Be sure to allow ample time for your commute, especially if inclement weather is a factor.

If you arrive at the test center 15 minutes after your scheduled appointment, you may be required to forfeit the appointment. If your appointment is forfeited, the test center will report to ARRT your failure to take the exam and your file will close. ARRT does not refund exam fees on forfeited appointments. To be considered eligible for a new exam window, you must contact your state licensing agency.

ID, Photo, Signature, Palm Vein Recognition (PVR)

When you arrive at the test center, you will be required to show two forms of identification, both of which show your signature and your pre-printed name as it appears on your CSR. One of the IDs must be a current official government-issued photo ID. See below for examples of the two types of IDs required.

Your name on your government-issued ID must be the same as that on record with ARRT, as reflected on your most recent CSR. Your ID may contain your full middle name as long as the middle initial on your CSR matches the first letter of your middle name. If your name has a cultural variation, ensure that the same variation appears on the CSR and both IDs.

If you arrive without proper ID or with discrepancies in your name listed on the IDs, you will not be admitted to the test center. You will not be allowed to re-schedule your exam appointment and will forfeit your examination fee. If you are admitted with questionable ID, you may have your score canceled following investigation by ARRT.

Upon checking in, you will be asked to provide a digital signature, which constitutes a) your consent for ARRT and/or Pearson VUE to retain and transmit personal data and exam responses; and b) your agreement to abide by the ARRT Candidate Rules Agreement, which will be presented to you prior to your exam.

You will also have your palm vein scanned and be photographed. If you leave the testing area for any reason, your palm will be scanned upon leaving and again before re-entering.

The palm-vein information and photo are for identification purposes only. The information is kept confidential and not shared with any organization.

Acceptable Forms of Identification

<table>
<thead>
<tr>
<th>PRIMARY: Must be government-issued, have pre-printed name, photo, and signature, and not be expired.</th>
<th>SECONDARY: Must have pre-printed name and signature and not be expired.</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Government-issued driver’s license</td>
<td>• Government-issued IDs (e.g., U.S. social security card)</td>
</tr>
<tr>
<td>• State ID card</td>
<td>• Employee ID or work badge</td>
</tr>
<tr>
<td>• Passport</td>
<td>• Bank automated teller machine (ATM) card</td>
</tr>
<tr>
<td>• School ID</td>
<td>• Credit card</td>
</tr>
<tr>
<td>• Any form of ID on the primary list</td>
<td>• Any form of ID on the primary list</td>
</tr>
</tbody>
</table>

Very Important! Please note that military IDs, Alien-Registration Cards (“Green Cards”) or any other IDs that do not have your signature will not be accepted at the test center as valid primary or secondary identification.
Assignment to Testing Station

Test center personnel will give you a short orientation and then escort you to an assigned workstation. You must remain in your assigned seat during the examination, except when authorized to leave by a test center staff member.

You will be required to keep all personal items in a secure locker. This includes purses, wallets and jewelry that may create noise and be distracting to other candidates. You cannot access items placed in a secure locker for the duration of your exam unless you receive written pre-approval from ARRT. This includes breaks. Test centers assume no responsibility for candidates’ personal belongings.

If you need to leave the testing room for personal reasons, you must first raise your hand to get test center staff’s permission. No additional time is allowed to make up for lost time due to this reason. Test center staff is required to file an incident report with ARRT on any candidate that leaves the testing room for more than 10 minutes.

Test center personnel are not trained to answer specific questions related to ARRT examination content.

Calculators and Notes

Personal calculators are not permitted. Both scientific and basic four-function calculators are provided on the computer, or you may request a basic four-function calculator from test center personnel. Appendix C presents facsimiles of the computer calculators; examples are also presented in the tutorial at the beginning of the exam.

Test center personnel will provide an erasable note board and pen, which may be replaced as needed during testing but may not be removed from the testing room at any time. Do not use the note board until after responding to the non-disclosure agreement, and you may not hold your note board up to the screen when responding to questions. Scratch paper, pens, or pencils are not allowed in the testing room.

Requesting Assistance

Raise your hand to notify test center personnel if:

- you need assistance adjusting the computer screen’s brightness or contrast
- you would like a hand-held calculator
- you need earplugs
- an image appears too large to be fully viewed
- you suspect a problem with the computer
- you need another erasable note board
- you need a break
- you have completed your exam
- you need a staff member for any other reason.

Test Center Misconduct and Score Cancellation

Numerous security measures are enforced during the test administration to ensure the integrity of ARRT exams. Be aware that you will be observed at all times while completing the exam. This includes direct observation by test center staff, as well as video and audio recording of the testing session.

Zero Tolerance Policy

ARRT has a zero tolerance policy regarding possession of cell phones and other electronic devices in the test center, as well as candidates leaving the test center building prior to completing the examination and attempting to re-enter the test center. Automatic score cancellation will result for any candidate violating this policy.

1. Under no circumstances are candidates permitted to access cell phones or any other type of electronic device after check-in at the test center. Test center personnel are instructed to dismiss any candidate found in possession of an electronic device after the candidate has completed the check-in procedures. This includes candidates on breaks.
Such electronic devices include, but are not limited to:

- cellular phones
- media players
- compact disc players or any other electronic communication/recording listening device
- removable storage devices
- personal digital assistants (PDAs)
- calculator or computing watches
- scan pens
- laptop computers, tablets or any computer device
- photographic devices

If a candidate is found possessing a cell phone or any other type of electronic device, the candidate will not be allowed to continue testing and the test center administrator will file an incident report. Possession of a cell phone or any other type of electronic listening device after check-in will result in automatic score cancellation.

2. If test center staff observes a candidate leaving the test center building and re-entering the test center prior to completing the exam, the candidate will not be allowed to continue testing and the test center administrator will file an incident report. Leaving the test center building and attempting to re-enter the test center will result in automatic score cancellation.

3. Candidates should not bring papers, pamphlets, books, notebooks or study guides into the test center. These items must remain outside of the test center during your exam.

4. For any candidate demonstrating misconduct or irregular behavior during or in connection with the examination — as evidenced by observation, statistical analysis of test responses or otherwise — the ARRT will withhold examination scores and may revoke or suspend a certificate, deny or reject an application for renewal of certification and registration, censure or take any other appropriate action. This includes permanently barring the candidate from all future examinations, terminating candidate participation in the exam and invalidating the results of that exam and any prior exam.

Examples of misconduct or irregular behavior include, but are not limited to:

- Removing items from a secured locker without prior authorization
- Giving or receiving unauthorized help
- Attempting to take the examination for someone else
- Failing to follow test center staff instructions
- Tampering with the operation of the computer or attempting to use it for any function other than completing the examination
- Attempting to remove test questions (in any format) from the test center
- Creating a disturbance of any kind
- Accessing notes, books, study guides or unauthorized electronic devices

If found to be in violation of this policy, you may find yourself part of an ARRT ethics investigation, or even a federal court lawsuit for copyright infringement and/or breach of contract.

**What if the Test Center is Closed?**

If you are unsure whether a test center is closed because of inclement weather or some other factor, phone Pearson VUE’s Call Center at (800) 632-9055. If the test center is open, it is your responsibility to keep your appointment. If it is closed, you will be given the opportunity to reschedule your appointment.

In the event of a test center closing, Pearson VUE will try to contact you to reschedule your exam appointment. You may also call Pearson VUE to reschedule your exam.
Exam Content and Modules

The Limited Scope Exam is delivered in modules. The modules are Core, Chest, Extremities, Skull/Sinuses, Spine, and Podiatric (refer to content specifications in Appendix A for details). You may take some or all modules, depending on the type of license offered by your state.

Questions in the “Core Module” of the exam apply to radiography in general and, unless specifically noted otherwise by the state, are to be completed by all candidates.

Questions in the “Radiographic Procedures Modules” apply to radiography of a particular body region. Licensing requirements vary by state, with some states requiring that candidates take multiple modules (for example, both chest and extremities), and other states allowing candidates to take only one of the modules (for example, only chest). Each state’s requirements determine which modules you are scheduled to take. Direct questions regarding your state’s requirements to your state licensing agency (see Appendix F).

The computer will present only those modules that were assigned to you by your state licensing agency. Those same modules are listed on your CSR. If you feel you have not been assigned the correct modules, contact your state licensing agency — not ARRT — immediately, and before scheduling your appointment.

NOTE: Breaks are not scheduled between modules. That is, the clock will continue ticking after completing one module and moving to the next module.

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 be permanently barred from future examinations.

Exam Timing and Review

Time allowed for completing an examination is based on the number of questions (see below). You must also click “A” for the non-disclosure agreement (see box on page 14), which appears after the tutorial and before starting the exam.

You are allowed 18 minutes for the tutorial before the exam, followed by two minutes to respond to the non-disclosure agreement, and 10 minutes for completing the survey at the end. You may not use the extra half-hour to answer examination questions. Voluntary breaks are subtracted from allowed testing time; that is, the clock is not stopped during voluntary breaks.

ARRT recommends that you complete the tutorial to familiarize yourself with the testing program and the online calculators.

Time Allowed

Each module is separately timed. The amount of time is determined by the number of questions in a module, at a rate of one minute per question. For example, the Core module has 115 total questions, so you have up to 115 minutes to complete it. The Chest module has 25 total questions, and 25 minutes are allowed for completion. It is important to pace yourself so that you complete each module within the allotted time.

Pilot Questions

Pilot questions are unscored questions embedded in the exam. ARRT uses data from these pilot questions to evaluate new exam questions. This is a cost-effective way to develop exam 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 percent of your test may be unscored pilot questions, and ARRT has allotted extra time for you to complete them. Your answers to these questions will not affect exam scores.

(continued on next page)
Review Session
The computer requires that you answer every question. If you are unsure of an answer to a question, you can mark the question and come back to it later. After you have answered all questions in a module, a review screen allows you to go back to any questions you marked. You can change answers during the review. When done reviewing questions, you can end the module. Extra time is not given for the review session; it must be completed during the time allowed for the specific module. A sample review screen is presented in Appendix C.

End Module / End Exam
Once you end the review session, the module ends. You will not be able to go back and review questions in that module. At this point, one of two things happens: (1) if you have additional modules to complete, the next module will appear; (2) if you do not have additional modules to complete, the exam ends.

Taking the Exam

Order of Questions
ARRT-administered examinations present questions in random order, which is consistent with the purposes of education and evaluation. When a student learns an important concept, the intent is that he or she will take that knowledge beyond a specific context or environment and generalize that knowledge to the practice setting.

Question Format
Most test items are standard multiple-choice with one best answer. ARRT is also introducing new formats on a limited basis. Some questions may require that you select multiple answers from a list or use the mouse to sort a list of options into a particular order. A few items may require that you identify anatomic structures on an image by placing the mouse arrow (cursor) over the correct location on the screen and clicking. Others may require you to answer a multiple-choice question after viewing a short video clip. Appendix C provides additional information on test question formats.

Selecting Answers
Each question is followed by a list of possible answers. Select only one answer for each question. An answer must be recorded for a question before the computer allows display of the next question. You may flag questions for later review if you are unsure of the answer. For further information regarding the computer administration of the examination, refer to Appendix C.

Pacing
It’s important to use your time economically. Time remaining is displayed in the upper right corner of the computer screen. If a question is difficult, guess at the answer, flag the question for review, and go on to the next question. When you have finished the examination and there is still time left, go back to the questions that you flagged and review them by clicking on the “Review Flagged” button. See Appendix C for details.

Guessing
Exam scores are based upon the total number of correct answers. Therefore, it is to your advantage to answer every question, even if that means selecting an answer of which you are not sure. You must indicate some response to each question before the computer will proceed to the next question.

Candidate Comments
You may comment on a specific question at the time you answer the question by clicking on the “Comment” button at the top of that page. No additional testing time is allowed during the exam for making comments on questions. You may comment on your test center experience in the evaluation survey at the end of the exam.

Leaving the Test Center
When you are finished with the examination and evaluation survey, raise your hand and test center staff will collect the erasable note board before dismissing you. Do not leave your seat until you have been dismissed. You may not remove note
boards from the testing room. Your palm will be scanned again before leaving the test center.

Appeals of Exam Administration

ARRT makes every effort to assure that examinations are fairly administered in a comfortable and safe environment.

On rare occasions, candidates may encounter technical difficulties at the test center. If you experience a technical difficulty, notify the test center administrator immediately. Test center personnel will make every effort to correct any difficulties as quickly as possible.

Should the test center experience a loss of power, back-up systems are in place, so every reasonable effort will be made to retrieve testing data. Once power is restored, you will be able to continue your testing session from the point where you were interrupted. If you are unable to continue the testing session due to severe technical difficulties, reasonable accommodations will be made, including re-scheduling of an exam appointment. ARRT will evaluate individual requests for re-scheduling at no cost.

If you believe that your examination was administered in a manner that substantially deviated from normal testing procedures, you may request a review of the procedures. If you experience a problem, verify with the test center administrator before you leave the test center that they will file a report regarding your issue.

If you wish to request a review, submit a completed Appeal of Exam Administration Procedures form (at [www.staterhc.org](http://www.staterhc.org)) detailing the specific nature of the alleged deviation from normal testing procedures. Be sure to include your email address, along with the examination discipline, administration date and test center location.

Because ARRT will investigate complaints only if they are received before your results have been released, you have only two days to submit the request. You may either fax the appeal form to (651) 687-0349, then call (651) 687-0048, ext. 3155, to confirm receipt; and/or mail the form (postmarked within two days of taking the exam) to ARRT.

If ARRT finds that any such deviation unfairly interfered with your ability to complete the exam to the best of your ability in the allotted time, your original score will be canceled and you will be allowed to retake the examination at no cost. Under no circumstances will your score be adjusted based upon the findings of the review.

Cancellation of Scores

ARRT may withhold or cancel scores if there is evidence that the security of the examination has been compromised. Such action may be necessary even in the absence of evidence indicating that a candidate was knowingly involved in the compromising activities. ARRT expects candidates to cooperate in any investigation. Once scores are cancelled, they are not available for reporting at a later day.

Some scores may be rendered invalid because of circumstances beyond a candidate’s control, such as technical difficulties. ARRT investigates each of these situations. When this results in a cancellation of scores, ARRT arranges for a makeup administration of the exam at no additional cost.

After the Examination

After the examination, all exam data is returned to ARRT, where scoring and analysis is completed. ARRT follows strict procedures to ensure accuracy of scoring.
Score Reporting

You will not see a preliminary score at the end of your exam at the test center. Limited Scope of Practice in Radiography exam results are reported to your state licensing agency as the number correct for each module assigned.

ARRT does not release scores to state candidates. Your score information is forwarded to your state licensing agency, which determines your pass/fail status and notifies you of your official pass/fail status. Contact your state licensing agency — not ARRT — if you have not received your results within four weeks.

Appeals of Exam Scoring

ARRT employs several quality control procedures to ensure that all examinations are scored with complete accuracy. However, you may request a review of the accuracy of the scoring process if you feel an error has occurred.

If you wish a review of scoring, you must send a letter of request to ARRT within 30 days of your exam date — detailing the specific reason a scoring error is suspected. Requests must be accompanied by a $25 fee, payable to ARRT. ARRT will review your responses to each question, compare those responses to the answer key, and recalculate raw scores.

ARRT will report its findings to your state licensing agency within 30 days of receiving the written request. If ARRT finds evidence of any scoring error, it will cancel your original score and notify your state of your corrected score. Final passing scores are determined by your state.

Re-examination

If you fail the examination, do not appear as scheduled, answer no or do not respond to the non-disclosure agreement, or allow your 90-day exam window to expire, you should contact your state licensing agency for information on their re-examination process. Once your state has determined you are eligible for re-examination, they will notify ARRT. Once ARRT processes your new exam fee, a new handbook and CSR indicating you new 90-day exam window will be mailed to you.
The purpose of the Limited Scope of Practice in Radiography Examination, which is developed and administered by The American Registry of Radiologic Technologists® (ARRT®) on behalf of state licensing agencies, is to assess the knowledge and cognitive skills underlying the intelligent performance of the tasks typically required of operators of radiographic equipment used to radiograph selected anatomic regions (chest, extremities, etc.). ARRT administers the examination to state approved candidates under contractual arrangement with the state and provides the results directly to the state. This examination is not associated with any type of certification and registration by the ARRT.

The knowledge and skills covered by the examination were determined by administering a comprehensive practice analysis survey to a nationwide sample of radiographers and adopting a subset of the tasks developed for the radiography task inventory as the limited scope task inventory. The task inventory appears in Attachment D of this document. The content specifications for the limited scope examination identify the knowledge areas underlying performance of the tasks on the limited scope task inventory. Every content category can be linked to one or more activities on the task inventory.

It is the philosophy of the ARRT that an individual licensed in limited scope radiography possess the same knowledge and cognitive skill, in his or her specific area of radiography, as radiographers. The modules covered by the examination are outlined below. Subsequent pages describe in detail the topics covered within each module. All candidates take the CORE module of the examination and one or more RADIOGRAPHIC PROCEDURE modules, depending on the type of license for which they have applied.

<table>
<thead>
<tr>
<th>Core Module</th>
<th>NUMBER OF SCORED QUESTIONS</th>
<th>TESTING TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Radiation Protection</td>
<td>37</td>
<td></td>
</tr>
<tr>
<td>B. Equipment Operation and Quality Control</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>C. Image Acquisition and Evaluation</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>D. Patient Care and Education</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Total for Core Module</td>
<td>100</td>
<td>1 hr, 55 min</td>
</tr>
</tbody>
</table>

E. Radiographic Procedure Modules

| E.1 Chest                                        | 20                         | 25 min       |
| E.2 Extremities                                  | 25                         | 30 min       |
| E.3 Skull/Sinuses                                | 20                         | 25 min       |
| E.4 Spine                                        | 25                         | 30 min       |
| E.5 Podiatric                                    | 20                         | 25 min       |

1. The core module includes an additional 15 unscored (pilot) questions. Each of the radiographic procedure modules has five additional unscored questions.

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A. RADIATION PROTECTION (37)

1. Biological Aspects of Radiation (7)
   
   A. Radiosensitivity
      1. dose-response relationships
      2. relative tissue radiosensitivities (e.g., LET, RBE)
      3. cell survival and recovery (LD50)
      4. oxygen effect
   
   B. Somatic Effects
      1. short-term versus long-term effects
      2. acute versus chronic effects
      3. carcinogenesis
      4. organ and tissue response (e.g., eye, thyroid, breast, bone marrow, skin, gonadal)
   
   C. Acute Radiation Syndromes
      1. CNS
      2. hemopoietic
      3. GI
   
   D. Embryonic and Fetal Risks
   
   E. Genetic Impact
      1. genetic significant dose
      2. goals of gonadal shielding
   
   F. Photon Interactions with Matter
      1. Compton effect
      2. photoelectric absorption
      3. coherent (classical) scatter
      4. attenuation by various tissues
         a. thickness of body part (density)
         b. type of tissue (atomic number)

2. Minimizing Patient Exposure (13)
   
   A. Exposure Factors
      1. kVp
      2. mAs
   
   B. Shielding
      1. rationale for use
      2. types
      3. placement
   
   C. Beam Restriction
      1. purpose of primary beam restriction
      2. types (e.g., collimators)
   
   D. Filtration
      1. effect on skin and organ exposure
      2. effect on average beam energy
      3. NCRP recommendations (NCRP Report No. 102, minimum filtration in useful beam)
   
   E. Exposure Reduction
      1. patient positioning
      2. patient communication
      3. digital imaging
      4. pediatric dose reduction
      5. ALARA
   
   F. Image Receptors (e.g., types, relative speed, digital versus film)

(Section A continues on the following page)
A.  RADIATION PROTECTION (continued)

3. Personnel Protection (9)

A. Sources of Radiation Exposure
   1. primary x-ray beam
   2. secondary radiation
      a. scatter
      b. leakage
   3. patient as source

B. Basic Methods of Protection
   1. time
   2. distance
   3. shielding

C. Protective Devices
   1. types
   2. attenuation properties
   3. minimum lead equivalent (NCRP Report No. 102)

4. Radiation Exposure and Monitoring (8)

A. Units of Measurement*
   1. absorbed dose
   2. dose equivalent
   3. exposure

B. Dosimeters
   1. types
   2. proper use

C. NCRP Recommendations for Personnel Monitoring (NCRP Report No. 116)
   1. occupational exposure
   2. public exposure
   3. embryo/fetus exposure
   4. ALARA and dose equivalent limits
   5. evaluation and maintenance of personnel dosimetry records

* Conventional units are generally used. However, questions referenced to specific reports (e.g., NCRP) will use SI units to be consistent with such reports.
B. EQUIPMENT OPERATION AND QUALITY CONTROL (11)

1. Principles of Radiation Physics (3)
   A. X-Ray Production
      1. source of free electrons (e.g., thermionic emission)
      2. acceleration of electrons
      3. focusing of electrons
      4. deceleration of electrons
   B. Target Interactions
      1. bremsstrahlung
      2. characteristic
   C. X-Ray Beam
      1. frequency and wavelength
      2. beam characteristics
         a. quality
         b. quantity
         c. primary versus remnant (exit)
      3. inverse square law
      4. fundamental properties (e.g., travel in straight lines, ionize matter)

2. Imaging Equipment (4)
   A. Components of Radiographic Unit (fixed or mobile)
      1. operating console
      2. x-ray tube construction
         a. electron sources
         b. target materials
         c. induction motor
      3. manual exposure controls
      4. beam restriction devices
   B. X-Ray Generator, Transformers, and Rectification System (basic principles)
   C. Components of Digital Imaging (CR and DR)
      1. PSP - photo-stimulable phosphor
      2. flat panel detectors - direct and indirect
      3. CR reader components
      4. CR plate erasure
      5. equipment cleanliness (imaging plates, CR plates)

3. Quality Control of Imaging Equipment and Accessories (4)
   A. Beam Restriction
      1. light field to radiation field alignment
      2. central ray alignment
   B. Recognition and Reporting of Malfunctions
   C. Digital Imaging Receptor Systems
      1. artifacts (e.g., non-uniformity, erasure)
      2. maintenance (e.g., detector fog)
      3. display monitor quality assurance
   D. Shielding Accessories (e.g., lead apron and glove testing)
C. IMAGE ACQUISITION AND EVALUATION (35)

1. Selection of Technical Factors (17)

A. Factors Affecting Radiographic Quality. Refer to Attachment C to clarify terms that may occur on the exam. (X indicates topics covered on the examination)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a. mAs</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. kVp</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>c. OID</td>
<td></td>
<td>X (air gap)</td>
<td>X</td>
</tr>
<tr>
<td>d. SID</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>e. focal spot size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. filtration</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>g. beam restriction</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>h. motion</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>i. anode heel effect</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. patient factors (size, pathology)</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>k. angle (tube, part, or receptor)</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

B. Technique Charts

1. pre-programmed techniques – anatomically programmed radiography (APR)
2. caliper measurement
3. fixed versus variable kVp
4. special considerations
   a. anatomic and pathologic factors
   b. pediatrics

C. Digital Imaging Characteristics

1. spatial resolution
   a. pixel
   b. sampling frequency
   c. DEL (detector element) size
   d. matrix size

2. image signal (exposure related)
   a. dynamic range
   b. quantum mottle (noise)
   c. SNR (signal to noise ratio)
   d. CNR (contrast to noise ratio)

D. Film Screen Characteristics

1. density
2. contrast
3. recorded detail

(Section C continues on the following page)
C. IMAGE ACQUISITION AND EVALUATION (continued)

2. Image Processing and Quality Assurance (6)
   A. Image Identification
      1. methods (e.g., photographic, radiographic, electronic)
      2. legal considerations (e.g., patient data, examination data)
   B. Film Screen Processing
      1. film storage
      2. components* 
         a. developer
         b. fixer
      3. maintenance/malfunction
         a. start up and shut down procedure
         b. possible causes of malfunction (e.g., improper temperature, contamination, replenishment, water flow)
   C. Digital Imaging Processing
      1. histogram
         a. value of interest (VOI)
         b. rescaling
      2. grayscale
         a. bit depth
         b. LUT
      3. edge enhancement
      4. equalization
      5. smoothing
      6. electronic masking
   D. Image Display
      1. viewing conditions (e.g., luminance, ambient lighting)
      2. spatial resolution (e.g., pixel size, pixel pitch)
      3. window level and width function
   E. Digital Image Display Informatics
      1. DICOM
      2. PACS
      3. RIS (modality worklist)
      4. HIS

3. Criteria for Image Evaluation (12)
   A. Receptor Exposure (e.g., mAs, distance)
   B. Exposure Indicator Determination
   C. Contrast/Gray Scale (e.g., kVp, filtration)
   D. Recorded Detail/Spatial Resolution (e.g., motion, poor film-screen contact)
   E. Distortion (e.g., magnification, OID, SID)
   F. Demonstration of Anatomical Structures (e.g., positioning, tube-part-image receptor alignment)
   G. Identification Markers (e.g., anatomical, patient, date)
   H. Patient Considerations (e.g., pathologic conditions)
   I. Image Artifacts, Digital and Film Screen
   J. Fog (e.g., age, chemical, radiation, temperature, safelight)
   K. Noise
   L. Acceptable Range of Exposure
   M. Gross Exposure Error (e.g., mottle, light or dark, low contrast)

* Specific chemicals in the processing solutions will not be covered (e.g., glutaraldehyde).
D. PATIENT CARE AND EDUCATION (17)

1. Ethical and Legal Aspects (3)
   A. Patient’s Rights
      1. informed consent (e.g., written, oral, implied)
      2. confidentiality (e.g., HIPAA)
      3. additional rights (e.g., Patient’s Bill of Rights)
         a. privacy
         b. extent of care (e.g., DNR)
         c. access to information
         d. living will; health care proxy
         e. research participation
   B. Legal Issues
      1. examination documentation (e.g., patient history, clinical diagnosis)
      2. common terminology (e.g., battery, negligence, malpractice)
      3. legal doctrines (e.g., respondeat superior, res ipsa loquitur)
      4. restraints versus immobilization
   C. Professional Ethics

2. Interpersonal Communication (3)
   A. Modes of Communication
      1. verbal/written
      2. nonverbal (e.g., eye contact, touching)
   B. Challenges in Communication
      1. patient characteristics
      2. explanation of medical terms
      3. strategies to improve understanding
      4. cultural diversity (e.g., language barriers)
   C. Patient Education (e.g., explanation of current procedure)

3. Infection Control (5)
   A. Terminology and Basic Concepts
      1. asepsis
         a. medical
         b. surgical
         c. sterile technique
      2. pathogens
         a. fomites, vehicles, vectors
         b. nosocomial infections
   B. Cycle of Infection
      1. pathogen
      2. source or reservoir of infection
      3. susceptible host
      4. method of transmission
         a. contact (direct, indirect)
         b. droplet
         c. airborne/suspended
         d. common vehicle
         e. vector borne
   C. Standard Precautions
      1. handwashing
      2. gloves, gowns
      3. masks
      4. medical asepsis (e.g., equipment disinfection)
   D. Additional or Transmission-Based Precautions
      1. airborne (e.g., respiratory protection, negative ventilation)
      2. droplet (e.g., mask, restricted patient placement)
      3. contact (e.g., gloves, gown, restricted patient placement)
   E. Disposal of Contaminated Materials
      1. linens
      2. needles
      3. patient supplies (e.g., tubes, emesis basin)

(Section D continues on the following page)
D. PATIENT CARE AND EDUCATION (continued)

4. Physical Assistance and Transfer (3)
   A. Patient Transfer and Movement
      1. body mechanics (e.g., balance, alignment, movement)
      2. patient transfer
   B. Assisting Patients with Medical Equipment (e.g., oxygen delivery systems)
   C. Routine Monitoring
      1. equipment (e.g., stethoscope, sphygmomanometer)
      2. vital signs (e.g., blood pressure, pulse, respiration)
      3. physical signs and symptoms (e.g., motor control, severity of injury)
      4. documentation

5. Medical Emergencies (3)
   A. Allergic Reactions (e.g., latex)
   B. Cardiac or Respiratory Arrest (e.g., CPR)
   C. Physical Injury or Trauma
   D. Other Medical Disorders (e.g., seizures, diabetic reactions)
E. RADIOGRAPHIC PROCEDURES

The specific positions and projections within each anatomic region that may be covered on the examination are listed in Attachment A. A guide to positioning terminology appears in Attachment B.

<table>
<thead>
<tr>
<th>RADIOGRAPHIC PROCEDURE MODULE</th>
<th># QUESTIONS PER MODULE</th>
<th>FOCUS OF QUESTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chest</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Routine</td>
<td>16</td>
<td>1. Positioning</td>
</tr>
<tr>
<td>B. Other</td>
<td>4</td>
<td>(topographic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>landmarks, body</td>
</tr>
<tr>
<td></td>
<td></td>
<td>positions, path</td>
</tr>
<tr>
<td></td>
<td></td>
<td>of central ray,</td>
</tr>
<tr>
<td></td>
<td></td>
<td>etc.)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20</td>
<td>emphasis: high</td>
</tr>
<tr>
<td>2. Extremities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Lower (toes, foot,</td>
<td>11</td>
<td>2. Anatomy</td>
</tr>
<tr>
<td>calcaneus, ankle,</td>
<td></td>
<td>(including</td>
</tr>
<tr>
<td>tibia, fibula, knee,</td>
<td></td>
<td>physiology, basic</td>
</tr>
<tr>
<td>patella, and distal</td>
<td></td>
<td>pathology, and</td>
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<tr>
<td>femur)</td>
<td></td>
<td>related medical</td>
</tr>
<tr>
<td>B. Upper (fingers, hand,</td>
<td>11</td>
<td>terminology)</td>
</tr>
<tr>
<td>wrist, forearm, elbow,</td>
<td></td>
<td>emphasis: medium</td>
</tr>
<tr>
<td>and humerus)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Pectoral Girdle (shoulder,</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>scapula, clavicle, and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>acromioclavicular joints)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>3. Skull/Sinuses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Skull</td>
<td>8</td>
<td>3. Technical</td>
</tr>
<tr>
<td>B. Paranasal Sinuses</td>
<td>8</td>
<td>Factors (including</td>
</tr>
<tr>
<td>C. Facial Bones (nasal</td>
<td>4</td>
<td>adjustments for</td>
</tr>
<tr>
<td>bones, orbits)</td>
<td></td>
<td>circumstances such</td>
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<td>as body habitus,</td>
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<td>tissue for foreign</td>
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<td>body, etc.)</td>
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<td>TOTAL</td>
<td>20</td>
<td>emphasis: low</td>
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<tr>
<td>4. Spine</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Cervical Spine</td>
<td>8</td>
<td>4. Equipment and</td>
</tr>
<tr>
<td>B. Thoracic Spine</td>
<td>6</td>
<td>Accessories (grids</td>
</tr>
<tr>
<td>C. Lumbar Spine</td>
<td>8</td>
<td>or Bucky,</td>
</tr>
<tr>
<td>D. Sacrum, Coccyx, and</td>
<td>2</td>
<td>compensating filter,</td>
</tr>
<tr>
<td>Sacroiliac Joints</td>
<td></td>
<td>automatic exposure</td>
</tr>
<tr>
<td>E. Scoliosis Series</td>
<td>1</td>
<td>control [AEC],</td>
</tr>
<tr>
<td>TOTAL</td>
<td>25</td>
<td>automatic</td>
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<tr>
<td></td>
<td></td>
<td>collimation,</td>
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<tr>
<td></td>
<td></td>
<td>dedicated chest</td>
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<td></td>
<td></td>
<td>unit)</td>
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<tr>
<td></td>
<td></td>
<td>emphasis: low</td>
</tr>
<tr>
<td>5. Podiatric</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Foot and Toes</td>
<td>14</td>
<td>Notes:</td>
</tr>
<tr>
<td>B. Ankle</td>
<td>5</td>
<td>1. Examinees take</td>
</tr>
<tr>
<td>C. Calcaneus (os calcis)</td>
<td>1</td>
<td>one or more</td>
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<tr>
<td>TOTAL</td>
<td>20</td>
<td>radiographic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>procedure modules,</td>
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<td></td>
<td></td>
<td>depending on the</td>
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<td></td>
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<td>type of license</td>
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<td></td>
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<td>they have applied</td>
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<td>for. Each</td>
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<td></td>
<td>radiographic</td>
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<td></td>
<td></td>
<td>procedure module</td>
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<td></td>
<td>has 20 or 25</td>
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<td></td>
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<td>scored test</td>
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<td></td>
<td>questions,</td>
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<td></td>
<td>depending on the</td>
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<td></td>
<td></td>
<td>module (see chart</td>
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<td>above). The</td>
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<td>number of</td>
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<td>questions</td>
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<td></td>
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<td>within a module</td>
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<td>should be</td>
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<td>regarded as</td>
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<td>approximate</td>
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<td></td>
<td>values.</td>
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<td>2. Each of the radiographic</td>
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<td></td>
<td></td>
<td>procedure modules</td>
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<tr>
<td></td>
<td></td>
<td>has five additional</td>
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<tr>
<td></td>
<td></td>
<td>unscored questions.</td>
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<tr>
<td>3. The radiographic procedure</td>
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<tr>
<td></td>
<td></td>
<td>modules may</td>
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<tr>
<td></td>
<td></td>
<td>include questions</td>
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<td></td>
<td></td>
<td>about the four</td>
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<tr>
<td></td>
<td></td>
<td>areas listed under</td>
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<td></td>
<td></td>
<td>FOCUS OF QUESTIONS</td>
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<tr>
<td></td>
<td></td>
<td>on the right side</td>
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<td></td>
<td></td>
<td>of the chart. The</td>
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<td></td>
<td></td>
<td>podiatric module</td>
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<tr>
<td></td>
<td></td>
<td>does not include</td>
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<tr>
<td></td>
<td></td>
<td>questions from the</td>
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<tr>
<td></td>
<td></td>
<td>equipment and</td>
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<tr>
<td></td>
<td></td>
<td>accessories section.</td>
</tr>
</tbody>
</table>

Notes:

1. Examinees take one or more radiographic procedure modules, depending on the type of license they have applied for. Each radiographic procedure module has 20 or 25 scored test questions, depending on the module (see chart above). The number of questions within a module should be regarded as approximate values.

2. Each of the radiographic procedure modules has five additional unscored questions.

3. The radiographic procedure modules may include questions about the four areas listed under FOCUS OF QUESTIONS on the right side of the chart. The podiatric module does not include questions from the equipment and accessories section.
Attachment A

Radiographic Positions and Projections

I. Chest
   A. Chest
      1. PA or AP upright
      2. lateral upright
      3. AP Lordotic
      4. AP supine
      5. lateral decubitus
      6. anterior and posterior obliques

II. Extremities
   A. Toes
      1. AP, entire foot
      2. oblique toe
      3. lateral toe
   B. Foot
      1. AP angle toward heel
      2. medial oblique
      3. lateral oblique
      4. mediolateral
      5. PA/eromedial
      6. sesamoids, tangential
      7. AP weight-bearing
      8. lateral weight-bearing
   C. Calcaneus (os calcis)
      1. lateral
      2. plantodorsal, axial
      3. dorsoplantar, axial
   D. Ankle
      1. AP
      2. AP mortise
      3. mediolateral
      4. oblique, 45° internal
      5. lateromedial
      6. AP stress views
   E. Tibia, Fibula
      1. AP
      2. lateral
      3. oblique
   F. Knee
      1. AP
      2. lateral
      3. AP weight-bearing
      4. lateral oblique 45°
      5. medial oblique 45°
      6. PA
      7. PA axial – intercondylar fossa (tunnel)
   G. Patella
      1. lateral
      2. supine flexion 45° (Merchant)
      3. PA
      4. prone flexion 90° (Settegast)
      5. prone flexion 55° (Hughston)
   H. Femur (Distal)
      1. AP
      2. mediolateral
   I. Fingers
      1. AP, entire hand
      2. PA finger only
      3. lateral
      4. oblique
      5. AP thumb
      6. oblique thumb
      7. lateral thumb
   J. Hand
      1. PA
      2. lateral
      3. oblique
   K. Wrist
      1. PA
      2. oblique 45°
      3. lateral
      4. PA for scaphoid
      5. scaphoid (Stecher)
      6. carpal canal
   L. Forearm
      1. AP
      2. lateral
   M. Elbow
      1. AP
      2. lateral
      3. external oblique
      4. internal oblique
      5. AP partial flexion
      6. axilla (Coyle)
   N. Humerus
      1. AP
      2. lateral
      3. AP neutral
      4. scapular Y
      5. transthoracic lateral
   O. Shoulder
      1. AP internal and external rotation
      2. inferosuperior axial
      3. posterior oblique (Grashey)
      4. tangential
      5. AP neutral
      6. transthoracic lateral
   P. Scapula
      1. AP
      2. lateral, anterior oblique
      3. lateral, posterior oblique
   Q. Clavicle
      1. AP
      2. AP angle 15-30° cephalad
      3. PA angle 15-30° caudad
   R. Acromioclavicular joints - AP bilateral with and without weights

III. Skull/Sinuses
   A. Skull
      1. AP axial (Towme)
      2. lateral
      3. PA (Caldwell)
      4. PA
      5. submentovertex (full basal)
   B. Facial Bones
      1. lateral
      2. parietoancthal (Waters)
      3. PA (Caldwell)
      4. PA (modified Waters)
   C. Nasal Bones
      1. parietoancthal (Waters)
      2. lateral
      3. PA (Caldwell)
   D. Orbits
      1. parietoacanthial (Waters)
      2. lateral
      3. PA (Caldwell)
   E. Paranasal Sinuses
      1. lateral
      2. PA (Caldwell)
      3. parietoacanthial (Waters)
      4. submentovertex (full basal)
      5. open mouth parietoacanthial (Waters)

IV. Spine
   A. Cervical spine
      1. AP angle cephalad
      2. AP open mouth
      3. lateral
      4. anterior oblique
      5. posterior oblique
      6. lateral swimmers
      7. lateral flexion and extension
   B. Thoracic Spine
      1. AP
      2. lateral, breathing
      3. lateral, expiration
   C. Lumbar Spine
      1. AP
      2. PA
      3. lateral
      4. L5-S1 lateral spot
      5. anterior oblique 45°
      6. anterior oblique 45°
      7. AP L5-S1, 30-35° cephalad
      8. AP right and left bending
      9. lateral flexion and extension
   D. Sacrum and Coccyx
      1. AP sacrum, 15-25° cephalad
      2. AP coccyx, 10-20° caudal
      3. lateral sacrum and coccyx, combined
      4. lateral sacrum or coccyx, separate
   E. Sacroiliac Joints
      1. AP
      2. posterior oblique
      3. anterior oblique
   F. Scoliosis Series
      1. AP/PA scoliosis series (Ferguson)

V. Podiatric
   A. Foot and Toes
      1. dorsal plantar (DP)*
      2. medial oblique
      3. lateral oblique
      4. lateral
      5. sesamoidal axial
   B. Ankle*
      1. AP*
      2. mortise*
      3. AP medial oblique*
      4. AP lateral oblique*
      5. lateral*
   C. Calcaneus (os calcis)
      1. axial calcaneal
      2. Harris and Bearth (ski-jump)*

*weight-bearing
Attachment B
Standard Terminology
for Positioning and Projection

Radiographic View: Describes the body part as seen by the image receptor or other recording medium, such as a fluoroscopic screen. Restricted to the discussion of a radiograph or image.

Radiographic Position: Refers to a specific body position, such as supine, prone, recumbent, erect, or Trendelenburg. Restricted to the discussion of the patient’s physical position.

Radiographic Projection: Restricted to the discussion of the path of the central ray.

POSITIONING TERMINOLOGY

A. Lying Down

1. supine – lying on the back
2. prone – lying face downward
3. decubitus – lying down with a horizontal x-ray beam
4. recumbent – lying down in any position

B. Erect or Upright

1. anterior position – facing the image receptor
2. posterior position – facing the radiographic tube
3. oblique position – erect or lying down

   a. anterior (facing the image receptor)

      i. left anterior oblique body rotated with the left anterior portion closest to the image receptor
      ii. right anterior oblique body rotated with the right anterior portion closest to the image receptor

   b. posterior (facing the radiographic tube)

      i. left posterior oblique body rotated with the left posterior portion closest to the image receptor
      ii. right posterior oblique body rotated with the right posterior portion closest to the image receptor
Limited Scope of Practice in Radiography — Exam Content Specifications, continued

Anteroposterior Projection

Posteroanterior Projection

Right Lateral Position

Left Lateral Position

Left Posterior Oblique Position

Right Posterior Oblique Position

Left Anterior Oblique Position

Right Anterior Oblique Position
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film-Screen Radiography</td>
<td>Digital Radiography includes both computed radiography and direct radiography.</td>
<td>Computed Radiography (CR) systems use storage phosphors to temporarily store energy representing the image signal. The phosphor then undergoes a process to extract the latent image.</td>
<td>Direct Radiography (DR) systems have detectors that directly capture and readout an electronic image signal.</td>
</tr>
<tr>
<td>Recorded Detail</td>
<td>The sharpness of the structural lines as recorded in the radiographic image.</td>
<td>Spatial Resolution</td>
<td>The sharpness of the structural edges recorded in the image.</td>
</tr>
<tr>
<td>Receptor Exposure</td>
<td>The amount of radiation striking the image receptor.</td>
<td>Receptor Exposur</td>
<td>The amount of radiation striking the image receptor.</td>
</tr>
<tr>
<td>Density</td>
<td>Radiographic density is the degree of blackening or opacity of an area in a radiograph due to the accumulation of black metallic silver following exposure and processing of a film. Density = Log incident light intensity transmitted light intensity</td>
<td>Brightness</td>
<td>Brightness is the measurement of the luminance of a monitor calibrated in units of candela (cd) per square meter on a monitor or soft copy. Density on a hard copy is the same as film.</td>
</tr>
<tr>
<td>Contrast</td>
<td>Radiographic contrast is defined as the visible differences between any two selected areas of density levels within the radiographic image. Scale of Contrast refers to the number of densities visible (or the number of shades of gray). Long Scale is the term used when slight differences between densities are present (low contrast) but the total number of densities is increased. Short Scale is the term used when considerable or major differences between densities are present (high contrast) but the total number of densities is reduced.</td>
<td>Contrast</td>
<td>Image contrast or display contrast is determined primarily by the processing algorithm (mathematical codes used by the software to provide the desired image appearance). The default algorithm determines the initial processing codes applied to the image data. Scale of Contrast is synonymous to “gray scale” and is linked to the bit depth of the system. “Gray scale” is used instead of “scale of contrast” when referring to digital images.</td>
</tr>
<tr>
<td>Film Latitude</td>
<td>The inherent ability of the film to record a long range of density levels on the radiograph. Film latitude and film contrast depend upon the sensitometric properties of the film and the processing conditions, and are determined directly from the characteristic H and D curve.</td>
<td>Dynamic Range</td>
<td>The range of exposures that may be captured by a detector. The dynamic range for digital imaging is much larger than film.</td>
</tr>
<tr>
<td>Film Contrast</td>
<td>The inherent ability of the film emulsion to react to radiation and record a range of densities.</td>
<td>Receptor Contrast</td>
<td>The fixed characteristic of the receptor. Most digital receptors have an essentially linear response to exposure. This is impacted by contrast resolution (the smallest exposure change or signal difference that can be detected). Ultimately, contrast resolution is limited by the dynamic range and the quantization (number of bits per pixel) of the detector.</td>
</tr>
<tr>
<td>Exposure Latitude</td>
<td>The range of exposure factors which will produce a diagnostic radiograph.</td>
<td>Exposure Latitude</td>
<td>The range of exposures which produces quality images at appropriate patient dose.</td>
</tr>
<tr>
<td>Subject Contrast</td>
<td>The difference in the quantity of radiation transmitted by a particular part as a result of the different absorption characteristics of the tissues and structures making up that part.</td>
<td>Subject Contrast</td>
<td>The magnitude of the signal difference in the remnant beam.</td>
</tr>
</tbody>
</table>

(continued on next page)
## Attachment D

### Task Inventory for Limited Scope of Practice in Radiography

<table>
<thead>
<tr>
<th>Activity</th>
<th>Content Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Evaluate patient’s ability to understand and comply with requirements</td>
<td>D.2.</td>
</tr>
<tr>
<td>for the requested examination.</td>
<td></td>
</tr>
<tr>
<td>4. Examine imaging examination requisition to verify accuracy and</td>
<td>D.1.B.</td>
</tr>
<tr>
<td>completeness of information (e.g., patient history, clinical diagnosis,</td>
<td></td>
</tr>
<tr>
<td>physicians orders).</td>
<td></td>
</tr>
<tr>
<td>5. Respond as appropriate to imaging study inquiries from patients.</td>
<td>D.2.</td>
</tr>
<tr>
<td>6. Assume responsibility for medical equipment attached to patients (e.g.,</td>
<td>D.4.B.</td>
</tr>
<tr>
<td>IVs, oxygen) during the imaging procedures.</td>
<td></td>
</tr>
<tr>
<td>7. Follow environmental protection standards for handling and disposing</td>
<td>D.3.E.</td>
</tr>
<tr>
<td>of biohazardous materials (e.g., sharps, blood and body fluids).</td>
<td></td>
</tr>
<tr>
<td>9. Notify appropriate personnel of adverse events or incidents (e.g.,</td>
<td>C.2.A., D.1.B.1., D.4.</td>
</tr>
<tr>
<td>patient fall, wrong patient imaged).</td>
<td></td>
</tr>
<tr>
<td>12. Communicate relevant information to others (e.g., MDs, RNs, other</td>
<td>D.</td>
</tr>
<tr>
<td>radiology personnel.</td>
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</tr>
<tr>
<td>15. Follow appropriate procedures when in contact with patient in</td>
<td>D.3.C., D.3.D.</td>
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<tr>
<td>isolation.</td>
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<tr>
<td>movement and/or ensure patients safety.</td>
<td></td>
</tr>
<tr>
<td>17. Use proper body mechanics and/or mechanical transfer devices when</td>
<td>D.4.A.1.</td>
</tr>
<tr>
<td>assisting patient.</td>
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</tr>
<tr>
<td>18. Use sterile or aseptic technique when indicated.</td>
<td>D.3.A.</td>
</tr>
<tr>
<td>22. Explain post-procedural instructions to patient or patient’s family.</td>
<td>D.2.C.</td>
</tr>
<tr>
<td>of contaminated items in preparation for next examination.</td>
<td></td>
</tr>
<tr>
<td>Activity</td>
<td>Content Categories</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>25. Document required information on patient's medical record (e.g., imaging procedure documentation, images).</td>
<td>C.2.E., D.1.B.</td>
</tr>
<tr>
<td>a. On paper</td>
<td></td>
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<tr>
<td>b. Electronically</td>
<td></td>
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<tr>
<td>26. Evaluate the need for and use of protective shielding.</td>
<td>A.2.B.</td>
</tr>
<tr>
<td>27. Take appropriate precautions to minimize radiation exposure to patient.</td>
<td>A.1., A.2.</td>
</tr>
<tr>
<td>31. Take appropriate precautions to minimize occupational radiation exposure.</td>
<td>A.3.B.</td>
</tr>
<tr>
<td>32. Wear a personnel monitoring device while on duty.</td>
<td>A.4.B.</td>
</tr>
<tr>
<td>33. Evaluate individual occupational exposure reports to determine if values for the reporting period are within established limits.</td>
<td>A.4.C.</td>
</tr>
<tr>
<td>34. Determine appropriate exposure factors using:</td>
<td>C.1.B.2.</td>
</tr>
<tr>
<td>a. Fixed kVp technique chart</td>
<td></td>
</tr>
<tr>
<td>b. Variable kVp technique chart</td>
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<tr>
<td>c. Calipers (to determine patient thickness for exposure)</td>
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<tr>
<td>35. Select radiographic exposure factors.</td>
<td>E.1. (focus 4)</td>
</tr>
<tr>
<td>a. Automatic Exposure Control (AEC)*</td>
<td>C.1.A.</td>
</tr>
<tr>
<td>b. kVp and mAs (manual)</td>
<td>C.1.B.1.</td>
</tr>
<tr>
<td>c. Pre-programmed techniques (anatomically programmed radiography)</td>
<td></td>
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<tr>
<td>a. Fixed unit</td>
<td></td>
</tr>
<tr>
<td>b. Mobile unit (portable)</td>
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<tr>
<td>37. Operate electronic imaging and record keeping devices.</td>
<td>C.2.C.</td>
</tr>
<tr>
<td>a. Computed Radiography (CR)</td>
<td>B.2.C.</td>
</tr>
<tr>
<td>b. Direct Radiography (DR)</td>
<td>B.2.C.</td>
</tr>
<tr>
<td>38. Prepare and operate specialized units (chest unit*).</td>
<td>E.1. (focus 4)</td>
</tr>
<tr>
<td>39. Remove all radiopaque materials from patient or table that could interfere with the image.</td>
<td>C.3.I.</td>
</tr>
<tr>
<td>40. Perform post-processing on digital images in preparation for interpretation (e.g., exposure indicator, brightness/contrast, window width and level).</td>
<td>C.2.C., C.2.D.</td>
</tr>
<tr>
<td>41. Use radiopaque markers to indicate anatomical side, position, or other relevant information (e.g., upright, decubitus).</td>
<td>C.2.A., C.3.G.</td>
</tr>
</tbody>
</table>

*Applies to specific modules
<table>
<thead>
<tr>
<th>Activity</th>
<th>Content Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>42. Add electronic annotations on digital images to indicate position, or other relevant information (e.g., upright, decubitus, standing, weight-bearing).</td>
<td>C.2.A., C.3.G.</td>
</tr>
<tr>
<td>44. Select equipment and accessories (e.g., grid, compensating filter, shielding) for the examination requested.</td>
<td>A.2.B., E.1. (focus 4)</td>
</tr>
<tr>
<td>46. Position patient to demonstrate the desired anatomy using body landmarks.</td>
<td>E., C.3.F.</td>
</tr>
<tr>
<td>47. Modify exposure factors for circumstances such as involuntary motion, casts and splints, pathological conditions, or patient’s inability to cooperate.</td>
<td>C.1.B.3., C.1.A.</td>
</tr>
<tr>
<td>49. Evaluate images for diagnostic quality.</td>
<td>C.3.</td>
</tr>
<tr>
<td>50. Determine corrective measures if image is not of diagnostic quality and take appropriate action.</td>
<td>C.3.</td>
</tr>
<tr>
<td>52. Visually inspect, recognize, and report malfunctions in the imaging unit and accessories.</td>
<td>B.3.B.</td>
</tr>
</tbody>
</table>
| 53. Recognize the need for basic evaluations of radiographic equipment and accessories.  
  a. Light field to radiation field alignment | B.3.A.1. |
  c. Shielding accessories (e.g., lead aprons and gloves) | B.3.D. |
| 54. Perform routine maintenance on digital equipment.  
  a. Perform start-up or shut-down | B.2.C.3. |
  c. Equipment cleanliness (e.g., imaging plates, CR cassettes) | B.2.C.5. |
  d. Recognize and report malfunctions | B.3.B. |
| Position patient, x-ray tube, and image receptor to produce the following diagnostic images: | |
| 55. Chest | E.1.A. |
| 56. Cervical spine | E.4.A. |
| 57. Thoracic spine | E.4.B. |
| 58. Scoliosis series | E.4.C. |
| 59. Lumbar spine | E.4.D. |
| 60. Sacrum and coccyx | E.4.E. |

*Applies to specific modules
<table>
<thead>
<tr>
<th>Activity</th>
<th>Content Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. Sacroiliac joints</td>
<td>E.4.D.</td>
</tr>
<tr>
<td>62. Skull</td>
<td>E.3.A.</td>
</tr>
<tr>
<td>63. Facial bones</td>
<td>E.3.C.</td>
</tr>
<tr>
<td>64. Nasal bones</td>
<td>E.3.C.</td>
</tr>
<tr>
<td>65. Orbits</td>
<td>E.3.C.</td>
</tr>
<tr>
<td>66. Paranasal sinuses</td>
<td>E.3.B.</td>
</tr>
<tr>
<td>67. Toes</td>
<td>E.2.A., E.5.A.</td>
</tr>
<tr>
<td>68. Foot</td>
<td>E.2.A., E.5.A.</td>
</tr>
<tr>
<td>69. Calcaneus (os calcis)</td>
<td>E.2.A., E.5.C.</td>
</tr>
<tr>
<td>70. Ankle</td>
<td>E.2.A., E.5.B.</td>
</tr>
<tr>
<td>71. Tibia, fibula</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>72. Knee</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>73. Patella</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>74. Distal femur</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>75. Fingers</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>76. Hand</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>77. Wrist</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>78. Forearm</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>79. Elbow</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>80. Humerus</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>81. Shoulder</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>82. Scapula</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>83. Clavicle</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>84. Acromioclavicular joints</td>
<td>E.2.A.</td>
</tr>
<tr>
<td>85. Soft tissue/foreign body</td>
<td>E.2. (focus 3)</td>
</tr>
</tbody>
</table>
Sample Questions for the Examination for the Limited Scope of Practice in Radiography

The following questions are similar in format to those in the examinations, but they do not necessarily represent the full range of content or levels of difficulty. An answer key is provided at the bottom of the page.

**DIRECTIONS:** Each of the questions or incomplete statements below is followed by four suggested answers or completions. Select the one which is best in each case.

001. Infection control guidelines require:
   a. hand washing after contact with each patient
   b. destroying all contaminated linen
   c. sterilizing cassettes prior to use
   d. wearing gloves for all patient contact

002. Which of the following sets of technical factors will produce the radiograph with the greatest density?

<table>
<thead>
<tr>
<th>mA</th>
<th>msec</th>
<th>SID</th>
<th>kVp</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>100</td>
<td>500</td>
<td>48&quot;</td>
</tr>
<tr>
<td>b.</td>
<td>200</td>
<td>250</td>
<td>36&quot;</td>
</tr>
<tr>
<td>c.</td>
<td>400</td>
<td>125</td>
<td>40&quot;</td>
</tr>
<tr>
<td>d.</td>
<td>500</td>
<td>100</td>
<td>40&quot;</td>
</tr>
</tbody>
</table>

003. Grid cut-off on a radiograph may be caused by all of the following EXCEPT:

   a. a tube that is off-center
   b. a tube that is angled perpendicular to the lead strips
   c. grid motion being started before the exposure is made
   d. improper distance being used with a focused grid

004. The purpose of the x-ray tube housing is to:
   1. provide adequate filtration
   2. provide electrical shielding
   3. control leakage radiation

   a. 1 & 2 only
   b. 1 & 3 only
   c. 2 & 3 only
   d. 1, 2 & 3

**Item 005 refers to the anatomical sketch on the right.**

005. The medial condyle is the structure numbered:

   a. 1
   b. 3
   c. 5
   d. 8

Computer-Based Testing Overview: Limited Scope of Practice in Radiography Exam

After you have completed check-in procedures, test-center staff will show you to a work station and will make sure the computer is ready to deliver your exam. The testing session consists of four segments:

1. **Introduction, Tutorial, and Non-Disclosure Agreement:** During this segment, the computer will verify your name and allow you to complete a tutorial if you choose. We strongly urge candidates to spend the few minutes to take the tutorial. You will also be asked to read and accept a non-disclosure agreement – it requires that all candidates agree to **not** copy any test questions or otherwise disclose the content of the exam. You must accept the terms of the non-disclosure agreement; if you do not respond within 2 minutes your exam session will end. The entire introductory segment will take anywhere from a few minutes up to 20 minutes, depending on how much time you spend reviewing the tutorial.

2. **Examination Session – Modules:** The Limited Scope of Practice in Radiography Exam is delivered in modules. The modules are Core, Chest, Extremities, Skull/Sinuses, Spine, and Podiatric (refer to Content Specifications for details). Candidates may take some or all modules, depending on the type of license offered by your state.

   **Which Modules.** The computer will present **only** those modules that were assigned to you by your state licensing agency. Those same modules are printed on your Candidate Status Report.

   **Time Allowed.** Each module is separately timed. The amount of time is determined by the number of questions in a module, at a rate of 1 minute per question. For example, the Core module has 115 questions, so you have up to 115 minutes to complete the Core module. The Core module includes 15 unscored (pilot) questions. The Chest module has 25 questions, and 25 minutes are allowed to complete that module. Each of the radiographic procedure modules include five additional unscored questions. It is important to pace yourself so that you complete each module within the allotted time.

   **Review Session.** The computer requires that you answer every question. If you are unsure of an answer to a question, you can “mark” the question and come back to it later. After you have answered all questions in a module, a review screen allows you to go back to any questions you marked. You can change answers during the review. When done reviewing questions, you can end the module. Extra time is not given for the review session; it must be completed during the time allowed for each module. A sample review screen is presented later in this Appendix.

3. **Item Review and End Review:** After responding to all questions within a module, you will have the opportunity to go back and review questions in the time remaining. You can change answers during the review. Once you select the “End Review” button, the module ends and you will no longer be able to go back and review questions in that module. At this point, one of two things happen: (1) If you have additional modules to complete, the next module will appear; (2) If you do not have additional modules to complete, the exam ends. A sample review screen appears later in this Appendix.

4. **Survey:** After the exam a short survey consisting of 13 questions will appear. Most people complete it in just a few minutes. The survey is important because it gives you the opportunity to let ARRT know about the quality of your testing experience. If something went wrong – or exceptionally right – this is the place to tell us.

The following pages illustrate the approximate appearance of a few of the more important computer screens. Taking a few minutes now to review these pages will help prepare you for exam day.

(continued on next page)
Appearance of Test Questions

When the examination starts, the clock will be reset to the time allowed for the module you are taking. Both the scored and unscored exam questions are presented in random order within each module. The content specifications provide additional information about the number of questions and topics covered.

This button allows you to mark questions for later review. If uncertain of the best answer, then choose your best guess and flag the question for later review by clicking on the box.

The clock indicates the time left to complete the module.

You can comment on specific exam questions by clicking on the “Comment” button. The “Calculator” button gives access to an on-screen calculator (see next page).

The counter indicates which question you are on and the total number of questions in the module you are in.

The Alamo is located in the state labeled as number.

- A 1
- B 2
- C 3
- D 4

Here is the exam question. Choose one best answer by clicking the appropriate oval or letter (A, B, C, D). If the question requires a graphic, it will also appear on the screen.

Click on these buttons to go back to the previous question or ahead to the next one.
Online Calculator

To use the calculator, click on the “Calculator” button at the upper left side of the exam screen. You can operate the calculator by using the mouse to click on numbers or arithmetic operations. Alternatively, the keyboard can be used. **Note:** Please make sure to check the display screen on the calculator to verify the correct entry of numbers.

The “Modes” button on the calculator allows you to toggle between the Standard and Scientific calculators. Note that most calculations on the exam can be done with the Standard calculator. However, some candidates may wish to use the Scientific calculator for certain calculations.

Some calculations may require the use of the natural logarithm function ("ln" key) or the e^x function ("2nd" key, then "ln" key). First press the key for the function that you would like, then enter the relevant number for the calculation.
Exam Review

After you have completed all questions in a module, a screen appears that allows you to go back to review questions. A filled-in flag icon appears next to any questions that you selected for review.

Instructions

The buttons in the lower right-hand corner allow you to review questions two (2) ways:

1. Review all of your questions and answers.
2. Review questions that are flagged for review. (Click the "flag" icon to change the review status.)

Note: Although the "Review Incomplete" button appears, this button is not functional; all questions on the exam require an answer.

You can return and review all questions within the module by clicking on the "Review All" button.

You can return to the questions you selected for review by clicking on the “Review Flagged” button. To review all items within the module, just click on “Review All.”

If you click this button you will see that you have no incomplete questions, because skipping of questions is not an option on ARRT exams.

This button ends the module. When you are done with your review, click this button to exit.

Once you click “End Review” you will no longer be able to review questions or change answers within that module, so be sure you are really ready to stop!

After the Examination

After you click “End Review” (at the end of your last module) and confirm that you will not be able to return to the exam, a screen will appear to remind you not to discuss questions and/or answers with anyone.

A short survey appears on the screen. It asks a few important questions about the quality of the test administration and provides a place for you to type any general comments. We appreciate your feedback.
### Pearson VUE Test Centers

This list may change after publication in this handbook. For an up-to-date list at any time, check the www.pearsonvue.com/arrt website.

<table>
<thead>
<tr>
<th>State</th>
<th>Cities</th>
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<tbody>
<tr>
<td>Alabama</td>
<td>Decatur, Dothan, Mobile, Montgomery</td>
</tr>
<tr>
<td>Arkansas</td>
<td>Fort Smith, Little Rock, Texarkana</td>
</tr>
<tr>
<td>California</td>
<td>Anaheim, Daly City, Fairfield, Fresno, Gardena, Lake Forest, Milpitas, Oakland, Ontario, Pasadena, Redding, Redlands, Roseville, Sacramento, San Diego, San Dimas, San Marcos, San Francisco, Santa Maria, Visalia, Westlake Village</td>
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<tr>
<td>Colorado</td>
<td>Greenwood Village, Pueblo, Westminster</td>
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<tr>
<td>Connecticut</td>
<td>Norwalk, Wallingford, Wethersfield</td>
</tr>
<tr>
<td>Dist. of Columbia</td>
<td>Washington</td>
</tr>
<tr>
<td>Delaware</td>
<td>Dover, Newark</td>
</tr>
<tr>
<td>Florida</td>
<td>Altamonte Springs, Deerfield Beach, Gainesville, Jacksonville, Miami, Orlando, Pembroke Pines Plantation, Port Charlotte, St. Petersburg, Tallahassee, Tampa</td>
</tr>
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<td>Georgia</td>
<td>Albany, Atlanta, Augusta, Macon, Savannah, Stockbridge</td>
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<td>Hawaii</td>
<td>Honolulu</td>
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<td>Idaho</td>
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<td>Illinois</td>
<td>Buffalo Grove, Chicago, Marion, Peoria, Schaumburg, Springfield</td>
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<td>Indiana</td>
<td>Evansville, Fort Wayne, Indianapolis, Merrillville, Terre Haute</td>
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<td>Iowa</td>
<td>Coralville, Davenport, Sioux City, W. Des Moines</td>
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<tr>
<td>Kansas</td>
<td>Hays, Overland Park, Topeka, Wichita</td>
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<td>Kentucky</td>
<td>Lexington, Louisville</td>
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<td>Bangor, Westbrook</td>
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<td>Columbia, Kansas City, Springfield, St. Louis</td>
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<td>Nebraska</td>
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<td>Nevada</td>
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<td>Bismarck, West Fargo</td>
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<td>Oregon</td>
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<td>Tennessee</td>
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<td>Texas</td>
<td>Abilene, Amarillo, Austin, Belfair, Carrolton, Corpus Christi, Dallas, El Paso, Harlingen, Houston, Hurst, Lubbock, Midland, San Antonio, Sugar Land, Tyler, Waco</td>
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<tr>
<td>Virginia</td>
<td>Alexandria, Chesapeake, Glen Allen, Lynchburg, Newport News, Richmond, Roanoke, Vienna</td>
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<td>Washington</td>
<td>Renton, Seattle, Spokane Valley, Yakima</td>
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<td>West Virginia</td>
<td>Charleston, Morgantown</td>
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<td>Wisconsin</td>
<td>Brookfield, Eau Claire, Kenosha, Madison, Milwaukee</td>
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<td>Wyoming</td>
<td>Casper</td>
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<td>U.S. Territories</td>
<td>Amer. Samoa/ Pago Pago, Guam/Tamuning, N. Mariana Islands/Saipan, Puerto Rico/ San Juan, Virgin Islands/ St. Thomas</td>
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<tr>
<td>Canada</td>
<td>Calgary, AB, Edmonton, AB, Burnaby, BC, Surrey, BC, Winnipeg, MB, Halifax, NS, Hamilton, ON, London, ON, Ottawa, ON, Toronto, ON, Montreal, OU, Saskatoon, SK</td>
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<tr>
<td>International</td>
<td>Asia/Pacific: Sydney, Australia, Hong Kong, Hong Kong, Mumbai, India, Osaka, Japan, Tokyo, Japan, Seoul, Korea, Manila, Philippines</td>
</tr>
<tr>
<td></td>
<td>Europe: London, England, Frankfurt, Germany, Istanbul, Turkey</td>
</tr>
</tbody>
</table>
EXAMINATIONS IN RADIOLOGIC TECHNOLOGY

LIMITED SCOPE CANDIDATE STATUS REPORT

Please review the following information very carefully and contact your state licensing agency with any corrections. Please read your handbook for complete examination details.

YOU MUST USE THE ID NUMBER BELOW WHEN SCHEDULING YOUR APPOINTMENT WITH PEARSON VUE

DATE: 04/16/2015
ID#: 999999

JOHN Q PUBLIC
APARTMENT 1
MAIN STREET
ANYTOWN, USA  00000

SOCIAL SECURITY NUMBER: 123-45-6789
FOR THE STATE OF: YOUR STATE
BIRTHDATE: 05/17/1979
DIRECT QUESTIONS TO: (555) 999-9999
EXAMINATION DISCIPLINE: LIMITED SCOPE OF PRACTICE IN RADIOGRAPHY
WINDOW START DATE: 04/22/2014
WINDOW END DATE: 07/20/2015

You have been assigned to take the examination indicated above based upon information you supplied to your state licensing agency. Please review the above information carefully and contact your state licensing agency at the number listed above if there are any corrections or changes before scheduling your exam.

At the test center, you will be required to show two forms of identification. One must be a government-issued ID which contains a permanently affixed photo along with a signature and must not be expired. The second ID must contain your signature and must not be expired. Please see the list of acceptable IDs in your Examination Handbook. Test center administrators have been instructed not to admit anyone to the test center not having the required suitable IDs. Fees will not be refunded if you are denied admission to the test center for failure to provide suitable identification.

NOTE: Only the modules listed below will appear on your exam. You will not be able to delete or add modules once your exam appointment has been scheduled. If you feel there is an error in the modules listed below, contact your state licensing agency at the number listed above before scheduling your examination.

Core
Chest
Extremities

Please direct all questions and personal information changes to your state licensing agency at the number listed above.

Your score from this exam is valid only for state licensing purposes.

See Reverse Side for Instructions on Scheduling Your Appointment

The American Registry of Radiologic Technologists®
Telephone: (651) 687-0048, ext. 3155
To schedule, confirm, change, or cancel your examination date, time, or location
Call Pearson VUE at 1-800-632-9055

Record Your Exam Scheduling Information Here

- Call Center Representative: Confirmation Number:
- Date: Time:
- Test Center Address and Directions:

Scheduling the Appointment
It is your responsibility to contact Pearson VUE to schedule the date, time, and location of your exam. Your exam must be completed between the assigned window dates printed on this Candidate Status Report. If you fail to complete your exam during your assigned 90-day exam window, your file will close and you will need to contact your state licensing agency to reapply.

Please call the Pearson VUE Call Center at 1-800-632-9055 to schedule your appointment. You may also schedule your appointment via the Internet at www.pearsonvue.com/arrt, where you will have to provide a return e-mail address. Shortly after scheduling your appointment, Pearson VUE will send a confirmation letter to you listing your appointment time and date, testing center location and directions to the testing center - via e-mail or US Postal Service. See your Examination Handbook for appointment scheduling and confirmation information.

Changing the Examination Appointment
If you find it necessary to change your examination appointment, you must first call Pearson VUE to cancel your existing appointment in accordance with the guidelines printed in your Examination Handbook before requesting a new exam date or making changes in the test center location. Pearson VUE will charge a fee for each canceled or rescheduled appointment. (See your Examination Handbook for complete details.)

Changing Your ARRT 90-Day Examination Window Dates
If it is necessary to change your ARRT 90-day examination window, you must first call Pearson VUE to cancel your existing appointment BEFORE requesting an examination window change with your state licensing agency. Window dates cannot be changed if an appointment is scheduled. Requests for changes in the examination window dates must be submitted to your state licensing agency for approval on or before the last day of your current 90-day exam window.

Government-issued ID and Second ID with Signature Required
At the test center, you will be required to show two forms of identification. One must be a government-issued ID containing a permanently affixed photo, along with a signature, and must not be expired. The second ID must contain your signature and must not be expired. Please see the list of acceptable IDs in your Examination Handbook. The name on your IDs must match the name appearing on your Candidate Status Report. Test center supervisors have been instructed not to admit anyone to the test center not having suitable IDs. Your fee will not be refunded if you are denied admission to the test center for failure to provide suitable identification.

Calculators
Personal calculators are prohibited for examinations in all disciplines. You may use the basic 4-function calculator or scientific calculator provided on the computer or you may request a hand-held, basic 4-function calculator from the test center administrator.

Results
Examination results are not given at the test center or provided by the ARRT under any circumstances. Examination results will be mailed to you by your state licensing agency. Please allow four weeks for delivery of examination scores. If results are not received within four weeks, please contact your state licensing agency, not the ARRT.

Appeals
If you wish to appeal the test administration procedures, you must notify ARRT in writing of any negative situations by submitting a completed Test Administration Appeal Form (located at StateRHC.org) within two days of your exam. ARRT will not investigate complaints it receives after results have been processed and sent to your state licensing agency. You should fax your appeal to (651) 687-0349. Please call (651) 687-0048, ext. 3155, to confirm. (See Examination Handbook for complete details.)

ALL CHANGES OR REQUESTS MUST BE MADE DIRECTLY TO YOUR STATE LICENSING AGENCY AT THE PHONE NUMBER LISTED ON THE FRONT OF THIS STATUS REPORT

(12/14)
Appendix F

State Licensing Agencies

This list may change after publication in this handbook. For an up-to-date list at any time, check the www.arrt.org website.

Arizona 602.255.4845  Medical Radiologic Technology Board of Examiners
4814 South 40th St.
Phoenix, AZ 85040

Arkansas 501.661.2301  Arkansas Department of Health
Radiologic Technology Licensure Program
Freeway Medical Building, Suite 100
5800 W 10th St.
Little Rock, AR 72204

California 916.327.5106  CDPH, Radiological Health Branch – Certification
PO Box 997414, MS #7610
Sacramento, CA 95899-7414

Colorado 303.692.3448  Colorado Department of Public Health and Environment
Radiation Control Program HMWMD – X-Ray Certification Unit
4300 Cherry Creek Dr. S., #B2
Denver, CO 80246-1530

Connecticut 860.509.7603  Department of Public Health – Radiographer Licensure
410 Capitol Ave, MS #12APP
Hartford, CT 06134-0308

Delaware 302.744.4546  Division of Public Health – Office of Radiation Control
417 Federal St.
Dover, DE 19901

Florida 850.488.0595  Florida Department of Health – Radiologic Technology Certification
4052 Bald Cypress Way, Bin C85
Tallahassee, FL 32399-3285

Hawaii 808.586.4700  Hawaii Radiologic Technology Board
591 Ala Moana Blvd., Room #133
Honolulu, HI 96813-4921

Illinois 217.785.9913  IEMA
1035 Outer Park Dr.
Springfield, IL 62704

Indiana 317.233.7565  IDPH, Medical Radiology Services
2 North Meridian St., 4 Selig
Indianapolis, IN 46204-3003

Iowa 515.281.0415  Iowa Department of Public Health, Bureau of Radiological Health
Lucas State Office Bldg., 5th floor
321 E 12th St
Des Moines, IA 50319

Kentucky 502.782.5687  Kentucky Board of Medical Imaging & Radiation Therapy
42 Fountain Place
Frankfort, KY 40601

(continued on next page)
<table>
<thead>
<tr>
<th>State</th>
<th>Phone Number</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana</td>
<td>504.838.5231</td>
<td>Louisiana State Radiologic Technology, Board of Examiners</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3108 Cleary Ave., Suite 207</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Metairie, LA 70002</td>
</tr>
<tr>
<td>Maine</td>
<td>207.624.8626</td>
<td>Radiologic Technology Board of Examiners</td>
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<tr>
<td></td>
<td></td>
<td>State House Station #35</td>
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<tr>
<td></td>
<td></td>
<td>Augusta, ME 04333-0035</td>
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<tr>
<td>Maryland</td>
<td>410.764.4777</td>
<td>Maryland Board of Physicians</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4201 Patterson Ave. / PO Box 2571</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Baltimore, MD 21215-0002</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>617.242.3035</td>
<td>MA Dept. of Public Health – Radiation Control Program</td>
</tr>
<tr>
<td></td>
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<td>Schrafft Center, Suite 1M2A</td>
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<tr>
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<td>529 Main St.</td>
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<tr>
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<td>Charlestown, MA 02129</td>
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<tr>
<td>Minnesota</td>
<td>651.201.4545</td>
<td>Department of Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Indoor Environments and Radiation Section, X-Ray Unit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PO Box 64497</td>
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<tr>
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<td>St. Paul, MN 55164</td>
</tr>
<tr>
<td>Mississippi</td>
<td>601.364.7360</td>
<td>State Department of Health, Professional Licensure</td>
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<td></td>
<td>Jackson, MS 39215-170</td>
</tr>
<tr>
<td>Montana</td>
<td>406.841.2300</td>
<td>Montana Board of Radiologic Technologists</td>
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<tr>
<td></td>
<td></td>
<td>PO Box 200513, 301 South Park, 4th floor</td>
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<tr>
<td></td>
<td></td>
<td>Helena, MT 59620-0513</td>
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<tr>
<td>Nebraska</td>
<td>402.471.2118</td>
<td>DHHS Licensure Unit</td>
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<tr>
<td></td>
<td></td>
<td>PO Box 94986</td>
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<tr>
<td></td>
<td></td>
<td>Lincoln, NE 68509</td>
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<tr>
<td>New Jersey</td>
<td>609.984.5890</td>
<td>New Jersey Dept. of Environmental Protection</td>
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<tr>
<td></td>
<td></td>
<td>Bureau of X-ray Compliance</td>
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<tr>
<td></td>
<td></td>
<td>PO Box 420, Mail Code 25-01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Trenton, NJ 08625</td>
</tr>
<tr>
<td>New Mexico</td>
<td>505.476.8633</td>
<td>Medical Imaging and Radiation Therapy Program</td>
</tr>
<tr>
<td></td>
<td>ext. 1009</td>
<td>PO Box 5469</td>
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<tr>
<td></td>
<td></td>
<td>Santa Fe, NM 87502-5469</td>
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<tr>
<td>New York</td>
<td>518.402.7580</td>
<td>Bureau of Environmental Radiation Protection</td>
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<td></td>
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<td>NY Dept. of Health</td>
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<tr>
<td></td>
<td></td>
<td>Empire State Plaza, CORning Tower, 12th floor</td>
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<tr>
<td></td>
<td></td>
<td>Albany, NY 12237</td>
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<tr>
<td>Ohio</td>
<td>614.752.4319</td>
<td>Ohio Dept. of Health, Radiologic Technology Section</td>
</tr>
<tr>
<td></td>
<td></td>
<td>246 N. High St.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Columbus, OH 43215</td>
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<tr>
<td>Oregon</td>
<td>971.673.0215</td>
<td>Oregon Board of Medical Imaging</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800 NE Oregon St., Suite 1160A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Portland, OR 97232</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>717.783.1400</td>
<td>State Board of Medicine/ State Board of Osteopathic Medicine</td>
</tr>
<tr>
<td></td>
<td>(Medicine)</td>
<td>PO Box 2649</td>
</tr>
<tr>
<td></td>
<td>717.783.4858</td>
<td>Harrisburg, PA 17105-2649</td>
</tr>
<tr>
<td>State</td>
<td>Phone Number</td>
<td>Address Details</td>
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</tr>
</tbody>
</table>
| Rhode Island     | 401.222.4998   | Rhode Island Dept. of Health / Radiologic Health Program  
3 Capitol Hill, Rm 206  
Providence, RI 02908 |
| South Carolina   | 803.771.6141   | South Carolina Radiation Quality Standards Association  
PO Box 7515  
Columbia, SC 29202 |
| Tennessee        | 615.383.9499   | Examination Processing Center  
(for Limited Scope and Bone Densitometry Equipment Operator exams)  
2000 Mallory Lane  
Suite 130-606  
Franklin, TN 37067 |
|                  | 615.532.3202   | Tennessee Board of Medical Examiners  
665 Mainstream Drive  
Nashville, TN 37243 |
| Texas            | 512.305.7030   | Texas Medical Board  
PO Box 2029  
Mail code 240  
Austin, TX 78768 |
| Utah             | 800.733.9267   | PSI Exams LLC  
(for Limited Scope and Bone Densitometry Equipment Operator exams)  
3210 E Tropicana Ave  
Las Vegas, NV 89121 |
|                  | 801.530.6628   | Division of Occupational and Professional Licensing  
160 East 300 South / PO Box 146741  
Salt Lake City, UT 84114-6741 |
| Vermont          | 802.828.3228   | Board of Radiologic Technology  
89 Main St., 3rd floor  
Montpelier, VT 05620 |
| Virginia         | 804.367.3051   | Commonwealth of Virginia Dept. of Health Professions  
Board of Medicine  
Perimeter Center, Ste. 300  
9960 Mayland Dr.  
Richmond, VA 23233 |
| Washington       | 360.236.4700   | Department of Health  
Radiologic Technology Program  
PO Box 47852  
Olympia, WA 98504-7852 |
| West Virginia    | 304.787.4398   | WV MI & RTT Board of Examiners  
1715 Flat Top Rd. / PO Box 638  
Cool Ridge, WV 25825 |
| Wisconsin        | 608.266.2112   | Wisconsin Department of Safety and Professional Services  
1400 Washington Ave  
PO Box 8935  
Madison WI 53708 |
| Wyoming          | 307.777.5403   | Wyoming State Board of Radiologic Technologist Examiners  
Emerson Bldg., Rm. 104  
2001 Capitol Ave  
Cheyenne, WY 82002 |
## Potential Exam Disclosure Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>When it’s OK</th>
<th>When it’s not OK</th>
<th>Bottom line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educator asks candidates to “stop by” after the exam to “let me know how it went.”</td>
<td>If the invitation and the feedback to the educator relates to their general experience (“I thought the test was not as difficult as I expected…”).</td>
<td>This type of invitation from an educator may be misinterpreted by the candidate — and the student may think that the educator is asking the candidate to reveal copyrighted information.</td>
<td>If the candidate is asked to reveal ARRT’s questions or their answer options, then he or she will need to report the educator to the ARRT Ethics Committee. The educator should stop the candidate immediately from revealing any exam content, since doing so may subject both the candidate and educator to ARRT’s ethics process.</td>
</tr>
<tr>
<td>Candidate tells another candidate, “The test was very difficult — I felt like I didn’t have enough time.”</td>
<td>The candidate is simply telling another candidate how they felt about the exam. This is all right because the candidate is not revealing any of ARRT’s questions or the answer options.</td>
<td>One candidate (or potential candidate) asks another candidate about the specific questions.</td>
<td>If ARRT’s questions or answer options are shared, these individuals may find themselves part of an ARRT ethics investigation and/or legal complaint.</td>
</tr>
<tr>
<td>Candidate to educator: “You didn’t teach me about this question that asked [specific question]. I felt unprepared.”</td>
<td>Never.</td>
<td>It is not all right and it will never be all right to reveal ARRT’s copyrighted questions (or answer options) to anyone.</td>
<td>Candidates sign numerous documents stating that they will not share exam questions, and ARRT expects the candidates to abide by those contracts. Those who don’t may find themselves part of an ARRT ethics investigation and/or legal complaint.</td>
</tr>
<tr>
<td>Candidate tells a potential candidate that there were multiple-choice and sorted-list questions on the test.</td>
<td>This is public information, noted in the certification and registration handbook.</td>
<td>It’s not all right to reveal anything beyond what’s in the handbook.</td>
<td>Keep the conversation limited to what’s public information, such as the content specifications, and there’s no problem.</td>
</tr>
<tr>
<td>Candidate asks another candidate, “I don’t think that I understood this question…[relates question]…Do you know what they were asking?”</td>
<td>Never.</td>
<td>It is not all right and it will never be all right to reveal ARRT’s copyrighted questions (or answer options) to anyone.</td>
<td>As noted two boxes up, candidates sign numerous documents stating that they will not share exam questions, and ARRT expects the candidates to abide by those contracts. Those who don’t may find themselves part of an ARRT ethics investigation and/or legal complaint.</td>
</tr>
<tr>
<td>Candidate says to a potential candidate, “If I were you, I would bring a sweater — it was cold at the test site.”</td>
<td>This candidate is simply telling another candidate about their surroundings at the test site. This is all right because the candidate is not revealing any of ARRT’s questions or the answer options.</td>
<td>If it leads a candidate (or potential candidate) to ask another candidate about the specific questions.</td>
<td>If ARRT’s questions or answer options are shared, these individuals may find themselves part of an ARRT ethics investigation and/or legal complaint.</td>
</tr>
<tr>
<td>Potential candidate says to a candidate, “Were there a lot of questions on [specific topic]?”</td>
<td>Never.</td>
<td>This candidate should be aware of the topics that are contained in the exam from the content specifications published in the certification and registration handbooks and should not be asking for more specific information than is contained in that publication.</td>
<td>If the potential candidate is asking the candidate to reveal ARRT’s questions or the answer options, then this conversation violates both the ARRT Standards of Ethics and the legal contract that both the candidate and the potential candidate have signed. If asked this type of question, the potential candidate should be shown the content specifications and should be warned of the consequences of revealing ARRT’s copyrighted questions or their answer options.</td>
</tr>
</tbody>
</table>
FAQs: State Licensing and Exam Procedures

**Question:** How do I become licensed to work in my state?

**Answer:** ARRT contracts with more than 25 states for administering ARRT exams to state license/permit candidates. Each state has rules and regulations that identify the qualifications required for a person to become licensed in that specific state. Contact your state licensing agency to find out more information. The list of radiologic technologist state licensing agencies is provided at www.arrt.org/handbooklinks.

**Question:** I sent my state exam application to the state. How long does it take to process?

**Answer:** States vary on how long it takes to process an application. Please allow up to four weeks for processing. If you have not heard from your state agency after that time, you may want to give them a call.

**Question:** I received my Candidate Status Report (CSR) and some of the information is incorrect.

**Answer:** The information on your CSR was provided to the ARRT by your state licensing agency. Contact your state licensing agency to make sure they have all of your correct information. After you contact your state, they will notify the ARRT of any corrections that should be made to your file. ARRT will make the correction(s) and send a new CSR to you. ARRT cannot update your information (i.e., name, address, SS#, and date of birth) without notification from your state licensing agency.

**Question:** My Candidate Status Report (CSR) states I am to take the chest module. I have already taken the chest module and need to have it removed.

**Answer:** The modules listed on your CSR are provided to the ARRT by your state licensing agency. If you feel you have been assigned a module you should not have to complete, notify your state licensing agency, who will then notify the ARRT. Do not schedule an exam appointment. Once the ARRT receives the information and updates your file, we will send a new CSR to you. It is important that you do not schedule an examination appointment until you receive your new CSR and verify the information was changed correctly.

(continued on next page)
**Question:** My Candidate Status Report (CSR) states I am scheduled to take the Core and Chest modules but I also need to take the Spine module.

**Answer:** The modules highlighted on your CSR are provided to the ARRT by your state licensing agency. If you feel you should be taking modules that are not highlighted, notify your state licensing agency, who will then notify the ARRT. Do not schedule an exam appointment. Once the ARRT receives the information and updates your file, we will send you a new CSR. It is important that you do not schedule an examination appointment until you receive your new CSR and verify the information was changed correctly.

**Question:** I have an ADA-qualifying disability and require testing accommodations. What do I need to do?

**Answer:** The ARRT provides reasonable testing accommodations in accordance with the Americans with Disabilities Act (ADA). Candidates needing testing accommodations are required to submit appropriate documentation to ARRT demonstrating that they have an ADA-qualifying disability. Documentation must be submitted along with a Request for Testing Accommodations form and must also include a personal statement describing your disability and its impact on your daily life and educational functioning. It is important to note that you cannot schedule an examination appointment until your ADA documentation has been received and approved by the ARRT. We will notify you in writing if you have been approved for testing accommodations or if we require further documentation. Complete information regarding required ADA documentation can be found at www.staterhc.org.

**Question:** English is my second language and I need more time for taking my exam. What do I need to do?

**Answer:** English as a second language is not covered by the Americans with Disabilities Act; therefore, testing accommodations cannot be provided.

**Question:** I called Pearson VUE to schedule my appointment but they said they don’t have a record for me. What happened?

**Answer:** When calling Pearson VUE to schedule your appointment, you must have a current CSR indicating you have a current exam window. You must also provide Pearson VUE with the 6-digit ID number (starting with a 9) that is located on your current CSR. If you do not provide this ID#, VUE will not be able to locate your test file.
Question: Where can I find study material?

Answer: ARRT does not provide specific lists of study materials or textbooks, nor does it recommend or endorse any review programs, mock registries, or study guides. ARRT exams are developed using many references. Please review the appropriate exam content specifications for an outline of the topics included on the exam. Content specifications can be found at www.arrt.org/handbooklinks and in the handbook appendix.

Question: Due to unforeseen circumstances, I am unable to schedule my exam during my current 90-day exam window. How can I change my state examination window?

Answer: You must request a window extension from your state licensing agency. Not all state agencies will allow a candidate to extend the 90-day exam window due to temporary license expiration dates. If your state approves a window extension for you, the state will notify ARRT via email. It is important to note that you must cancel an existing exam appointment before requesting an extension. In addition, window extension requests must be made before your current exam window expires. ARRT cannot extend an exam window if there is an appointment appearing on your file or if your window has expired. ARRT will send a new CSR with a new exam window to you after we have processed your window extension request.

Question: My exam appointment is scheduled for tomorrow afternoon but I can’t make it. What do I do?

Answer: Appointments must be cancelled at least 24 hours (one business day) prior to the scheduled appointment. If less than 24 hours remain until your scheduled appointment, you will be required to keep the appointment. If you do not show up for the appointment, you will lose your exam fee, your file will be closed and your exam window will end. Please note that appointments for Monday must be canceled no later than the appointment time on Friday.

Question: The weather was bad, causing me to arrive 30 minutes late for my exam appointment, and the test center administrator wouldn’t let me take my exam.

Answer: Candidates are responsible for showing up for their appointments on time, even if the weather is bad. If bad weather is forecast for your area, plan extra time for your commute. It’s better to arrive early and have time to sit and relax than to rush to get there on time and be stressed out. If bad weather is forecast, it might even be easier to cancel your appointment in advance and reschedule it for a later date when the bad weather has passed.
**Question:** The name on my government-issued driver’s license has an extra name which is not on my Candidate Status Report (CSR), so I was not able to take my exam. Why not? What now?

**Answer:** Security at the test centers is strictly enforced – which includes making sure the name on your government-issued photo ID matches the name you submitted on your application to the state. Play it safe. When you receive your CSR, verify that the name matches exactly the way it appears on the identification documents you will use at the test center. It’s better to be prepared than be turned away at the test center, causing your exam fee to be forfeited and your exam window to be closed. Candidates turned away due to a name discrepancy are required to contact their state licensing agency to find out the process to again become eligible for the exam.

**Question:** I presented a military card for my government-issued photo ID but it was not accepted and I was unable to test. Why was I turned away?

**Answer:** ARRT and Pearson VUE require candidates to present a government-issued photo ID that has not expired and that has a signature. Not all military IDs have signatures appearing on them. Some military IDs have a barcode instead of the signature. It’s best to check your IDs ahead of time to make sure that when you present them, they will meet all requirements. Things to keep in mind when determining which IDs to bring to the test center are:

1. Primary ID must be a government-issued ID containing a permanently affixed photo, along with a signature, and must not have expired;
2. The secondary ID must contain your pre-printed name and signature and must not be expired.

**Question:** The test center would not let me use my own calculator for my exam.

**Answer:** Scientific and basic 4-function calculators are embedded in the exam for your use. If you don’t feel comfortable using one of the embedded calculators, test centers are equipped with basic 4-function, hand-held calculators. You may request a hand-held calculator when you check in. Personal calculators are not allowed under any circumstance.
**Question:** The Pearson VUE test center administrator told me I couldn’t write on my note board until my exam started. I don’t understand.

**Answer:** It is in your best interest to follow the instructions of the test center administrator. Candidates may hurry to start writing notes on their note boards and not pay attention to the exam screen in front of them. A Non-Disclosure Agreement (NDA) appears after the tutorial and candidates have two minutes to respond to the NDA. Anxious candidates may start writing on their note boards and not pay attention to the computer screen prompts. If a candidate doesn’t respond to the NDA within the allotted two minutes, the exam shuts down and cannot be restarted. When this happens, the exam fee is forfeited, the candidate file is closed and the 90-day exam window ends. Play it safe and follow the screen prompts until the exam begins.

**Question:** I had to use the rest room and my exam time clock did not stop while I was gone. Was it supposed to?

**Answer:** Candidates are allowed to take breaks; however, the exam continues running. Exam appointments allow established times for the tutorial, the exam, and a satisfaction survey. Timed breaks are not built into the exam appointment. Limited Scope exam candidates are not provided scheduled breaks between each module – which means if you take a break after your Core module, the next module will start right away, even if you decide to take a break. It’s best to take care of personal business before your exam and to keep comfort breaks to a minimum.

**Question:** The power went out briefly during my exam and I was able to complete my exam from where it stopped. I think I should be able to complete the exam over at no cost. Can I?

**Answer:** On rare occasions, a candidate may experience a technical difficulty while completing the exam. Test center personnel are trained to correct any difficulty encountered as quickly as possible. Test centers are equipped with backup systems, so every reasonable effort will be made to retrieve testing data. In most cases, the test center personnel are able to restart the exam administration without loss of any responses already made. In instances where a restart is not successful, the test will be re-scheduled at no cost. If the test center is able to restart your exam and you are able to continue where you left off, your exam will be scored and will count as an attempt.
**Question:** The person next to me was typing loudly. I feel this affected the way I tested and do not feel my score is accurate. What are my options?

**Answer:** You should have alerted the test center supervisor immediately when you felt something or someone was affecting your test experience and asked the test center administrator to file a report before leaving the test center. You must also notify ARRT in writing within two days of your exam date. ARRT will investigate each issue reported and respond to your appeal in writing. If ARRT finds any deviation unfairly interfered with your ability to complete your exam to the best of your ability, the original score will be canceled and you will be allowed to retake the exam at no cost. Under no circumstances will a candidate’s score be adjusted.

**Question:** I was in the middle of the review portion of my exam and the exam ended. I don’t feel all of my responses were counted. How do I have my exam reviewed and rescored?

**Answer:** A candidate may request a review of score accuracy if s/he feels an error has occurred. Send a letter of request to the ARRT within 30 days of your exam date – detailing the specific reason a scoring error is suspected. Requests must be accompanied by a $25 fee, payable to ARRT. ARRT will review your response to each question, compare those responses to the answer key, and recalculate raw scores. Passing scores are determined by your state.

**Question:** I took my exam three weeks ago but I haven’t received my results. Did they get lost?

**Answer:** ARRT processes candidate results every week and provides your scores to your state licensing agency. Your state licensing agency will then review the scores and determine whether you passed or failed; the ARRT does not make that determination. Some states mail a notice to the candidate; other states require the candidate to check online. Either way, please allow up to four weeks for your state to provide you with your score information. After four weeks you should contact your state licensing agency.
Limited Scope Examination Checklist

When you receive your Candidate Status Report (CSR) from ARRT...

☐ Check that your name on your CSR matches your name on your two forms of required ID.

☐ Check closely to make sure you have been assigned the correct modules by your state licensing agency. See page 5 for what to do if they aren’t correct.

☐ If your names do not match, notify your state licensing agency — not ARRT — immediately, and before scheduling an exam appointment. (Any candidate showing up at the test center with names that do not match will not be permitted to take the exam.)

☐ If your names on IDs and the CSR match, you may schedule your examination appointment by phoning the number indicated on the back of your CSR, or schedule on Pearson VUE’s website at www.pearsonvue.com/arrt.

☐ Be sure to note the dates of your 90-day examination window during which you must schedule and take your exam. If you are running out of time, contact your state licensing agency to request an extension as detailed on page 7.

☐ If you have to cancel or reschedule an appointment follow the procedures detailed on pages 8-9.

At the test center...

☐ You will be required to present two IDs, one of which must be a current government-issued photo ID and both of which must have your signature (review page 10 for details on ID requirements).

☐ After your identification is established, keep your IDs in your possession.

Following the exam...

☐ ARRT will provide candidate score information to your state licensing agency who will determine your pass/fail status. Scores are not available from ARRT or Pearson VUE, or at the test center.

☐ If you don’t receive your results within four weeks, phone your state licensing agency — not ARRT.
Important Notice:  **State Licensing is Not ARRT Credentialing**

A passing score on a state licensing examination does not make a candidate eligible for ARRT certification and registration. If the six-digit ID number on your Candidate Status Report begins with a “9,” you are a state candidate only. Candidates seeking ARRT certification and registration must have submitted an application directly to ARRT and must have met all other criteria for ARRT certification and registration. Those seeking only state licensing must meet criteria established by the state. Test scores earned as a state candidate may not be used for ARRT certification and registration.