



Pulse Radiology Education

Pulse Radiology

Online CT Program plus Clinical Training

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Monday - Friday
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DESCRIPTION OF COURSE

This course is an ARRT-Approved, Structured Education Online Program. This course is also an approved RCEEM by the American Society of Radiologic Technologists (ASRT). The structured education online portion is comprised of 14 online, weekly modules which includes: multiple video lectures followed by 11 weekly tests, one (1) 100-question midterm, one (1) 220-question Mock CT Registry and one (1) week dedicated to Clinical Requirements and Registry Preparation.

Part A: Online CT Structured Education

The goal of this online structured education course is to provide ARRT radiologic technologists, ARRT & ARDMS sonographers, NMTCB technologists, and radiation therapists the fundamental principles and comprehensive knowledge to be fully prepared to sit confidently for the Computed Tomography (CT) certification exam administered by the American Registry of Radiologic Technologists (ARRT). Pulse Radiology CT Trainees will learn, review, and be tested on CT principles and topics focused on CT scanners, systems, and operations. The 100 question midterm will cover information from Week 1-6 and will be presented in a similar fashion to the ARRT registry. After the midterm, we will talk about radiation safety and patient care. This will be followed by contrast administration and describe the different uses and types of contrast media used for CT exams. The final lectures will focus on comprehensive anatomy on each body part and the associated anatomical structures. The last two modules focus on registry prep and provide a tutorial on how to submit cases to the ARRT and what to expect on exam day. The final test is a 220 Mock Registry which mirrors the real ARRT Registry.

Part B: Clinical Training

CT trainees will be assigned access to Pulse Radiology affiliated CT centers to develop their practical skills through observation, training, and advanced learning from registered CT technologists in the field. All CT trainees must adhere to the company policy of the designated clinical affiliate. Clinical appointments are appointed in a first come, first serve format.

What to expect before, during, and at the conclusion of clinical training?

Clinical training is a very important step in your development as a CT technologist and unprofessional behavior will **not be tolerated**. Our clinical affiliates share a similar interest in developing the future of our CT labor force. To ensure a positive outcome, clinical affiliates have the ability to remove a trainee from their site, pause training, or approach them for employment. Treat this training as a live interview as many of our alumni have been hired at their clinical site for employment. If a student is dismissed or removed from their clinical facility by the affiliate, Pulse Radiology **will not** place the student again for training.

Clinical Coordination

Each Pulse Radiology CT trainee will be assigned a personal Clinical Coordinator to help communicate, coordinate, and manage schedules and assist with clinical case submissions and verifications. Each trainee is allowed a maximum of 2 days of call out time from their training. This must be approved by your Clinical Coordinator and site manager 2 days in advance to ensure proper communication. For any emergencies, please contact our team at info@pulseradiology.com.

Uniform Policy & Identification

Please follow the uniform guidelines of the clinical site you have been designated. Sneakers are preferred. Sandals, jeans, and sweatpants are not approved footwear. Each Pulse Radiology CT trainee will be provided a photo ID and dosimetry badge which should be worn at chest level while on an affiliate's premises. If you have not received your photo ID, please contact our team at info@pulseradiology.com.

If you are currently pregnant or become pregnant during your CT clinical training, please notify your Clinical Coordinator to ensure a fetal badge is ordered.

Training at your Employer

If your employer approves your clinical training onsite, please notify your Clinical Coordinator to properly communicate schedules and expectations.

PREREQUISITES OF COURSE

- Imaging professionals registered with the American Registry of Radiologic Technologists (ARRT) includes:
 - ARRT Radiologic Technologists
 - ARRT Radiation Therapists
 - NMTCB Nuclear Medicine Technologists
 - ARDMS & ARRT Sonographers
- Bachelor, Associate, or High-School degree + ARRT registration is required.

INTERNET CAPABILITIES

Pulse Radiology operates from an external, web-based e-learning platform called Teachable. For best performance, connecting to Wi-Fi would provide best speed. The Pulse Radiology Student Portal is accessible via a desktop, laptop, tablet or smartphone.

READING SOURCES

Pulse Radiology does not require any additional reading sources. We do provide external voluntary resources to assist in registry preparation:

- Comprehensive MRI/CT Cross Sectional Anatomy, Neil Huber, RT(R)(MR)
 - <https://pulse-radiology.teachable.com/p/comprehensive-mri-cross-sectional-anatomy>
- Lange Review Computed Tomography Examination by Sharlene M. Snowden
 - <https://www.amazon.com/LANGE-Review-Computed-Tomography-Examination/dp/0071843868>
- Mosby's Exam Review for Computed Tomography, 3rd Edition by Daniel N. DeMaio
 - <https://www.amazon.com/Mosbys-Exam-Review-Computed-Tomography/dp/0323416330>

POLICY ON ACADEMIC HONESTY

Academic dishonesty is a serious ethical and professional infraction. This course places high value upon educating fellow technologists, as passing a certification exam is the goal for this course. Remember that cheating and dishonesty only effects you and degrades the quality of preparation offered to you by Pulse Radiology. This course is created to be completed as a consecutive, progressive format. Each week builds fundamental content that is advanced in the following weekly modules. For best results and to minimize confusion, we require all trainees to complete this course in the consecutive weekly format outlined.

Pulse Radiology trusts that students do not infringe on the copyright law by sharing materialized information or using course information for future teaching and publishing without Pulse Radiology's written and/or verbal consent.

METHODS OF EVALUATING STUDENTS

- CT trainees are required to complete each module to its full entirety to receive any continuing education credits which are approved by the American Society of Radiologic Technologists (ASRT).
- At the conclusion of each weekly test, CT trainees will receive a copy of their test results to the e-mail provided during test login. You have 3 attempts to pass the weekly test with a 75% or greater.
- Evaluation of each CT trainee will be monitored through lecture completion, weekly tests, midterm, and final Mock Registry 220.

COURSE CURRICULUM

Week 1: Welcome & Syllabus Overview

- [Syllabus: Overview of the Pulse Radiology CT Program](#)
- [ARRT CT Content Specifications](#)
- [ARRT CT Clinical Requirements](#)
- [Pulse Radiology Clinical Notes](#) (printable)
- [Information about Dosimetry Badge](#)

Week 2: System Components

- [Computer Systems](#)
- [DAS & Array Processor](#)
- [CT Patient Table](#)
- [CT Gantry](#)
- [X-ray Tube & Production](#)
- [Filters, Collimation, & Detectors](#)
- [Test](#)

Week 3: CT Image Formation

- [Radiation Physics](#)
- [Data Acquisition](#)
- [Reconstruction](#)
- [Post-Processing CT Images](#)
- [Test](#)

Week 4: CT Image Evaluation

- [Image Display](#)
- [Image Quality](#)
- [Test](#)

Week 5: Artifacts

- [The Appearances & Troubleshooting of CT Artifacts](#)
- [Test](#)

Week 6: CT Informatics

- [Imaging Informatics & Network](#)
- [Test](#)

Week 7: Midterm

- **Midterm 100**

- This midterm will be one hundred (100) question that will cover content from Weeks 1-6.

Week 8: Radiation Safety

- **Dose Measurements & Radiation Protection**
- **Understanding Contrast Media**
- **Contrast Administration Techniques**
- **Test**

Week 9: Patient Care

- **Patient Interactions**
- **Infection Control**
- **Test**

Week 10: CT Contrast Media

- **CT Contrast Media**
- **CT Contrast Considerations**
- **Test**

Week 11: CT Anatomy of the Head, Neck, & Spine

- **CT Anatomy: Head**
- **CT Anatomy: Neck**
- **CT Anatomy: Spine**
- **Test**

Week 12: CT Anatomy of the Upper & Lower Extremities

- **CT Anatomy: Chest**
- **CT Anatomy: Abdomen**
- **CT Anatomy: Pelvis**
- **CT Anatomy: Extremities**
- **Test**

Week 13: CT Registry Preparation & Clinical Instructions

Clinical and Registry Instructional Preparation

- How to Submit ARRT Structured Education Certificate to your ARRT Dashboard (video)
- How to Submit Clinical Requirements for Verification on your ARRT Dashboard (video)
- Clinical Case Checklist (print)
- ARRT CT Registry Preparation and Instructions

Week 14: Mock CT Registry 220

Mock CT Registry 220

- This week is a re-calibration week to evaluate your "registry readiness" by providing a two hundred and twenty (220) question mock registry.



ARRT Credit Distribution

Title Pulse Radiology CT Registry Program
Reference Number NYZ0167001
Credits 29.00 A
Approved By American Society of Radiologic Technologists
Approval Period 01/07/2017 - 02/01/2026
Is this a Textbook? No

Credit Distribution

Effective 1/7/2017

Expires 2/1/2026

Default view shows major content categories and subcategories

DISCIPLINE	YEAR	MAJOR CONTENT CATEGORY & SUBCATEGORIES	CE CREDITS PROVIDED
CT	2016	Patient Care	
		Patient Interactions and Management	3.00
		Contrast Administration	2.00
CT	2016	Safety	
		Radiation Safety and Dosimetry	2.50
CT	2016	Image Production	
		Physics and Instrumentation	10.00
CT	2016	Procedures	
		Neuro	2.00
		Body	0.50
		Musculoskeletal	0.50
CT	2017	Patient Care	
		Patient Interactions and Management	5.00
CT	2017	Safety	
		Radiation Safety and Dose	2.50
CT	2017	Image Production	
		Image Formation	5.00
		Image Evaluation and Archiving	5.00
CT	2017	Procedures	
		Head, Spine, and Musculoskeletal	1.00
		Neck and Chest	1.00
		Abdomen and Pelvis	1.00
CT	2022	Patient Care	
		Patient Interactions and Management	5.00
CT	2022	Safety	
		Radiation Safety and Dose	2.50
CT	2022	Image Production	
		Image Formation	5.00
		Image Evaluation and Archiving	5.00
CT	2022	Procedures	
		Head, Spine, and Musculoskeletal	1.00
		Neck and Chest	1.00
		Abdomen and Pelvis	1.00

Verified completion of this activity fully satisfies ARRT's structured education requirements for individuals pursuing post-primary certification and registration in .