

# Computed Tomography Imaging



## What is the Computed Tomography (CT) Program?

Computed tomography (CT) is a medical imaging modality that produces cross-sectional images of the body using x-rays and digital computers. The computed tomography technologist is a skilled professional who is qualified by education and clinical experience to produce cross-sectional images of the patient.

## How is the curriculum designed?

The curriculum is divided into areas of study consisting of lecture, laboratory, and clinical experiences. Content areas of the curriculum include anatomy and physiology, professional ethics, CT safety and equipment operation, CT positioning and procedures, imaging techniques, and pathology.

## Where do CT technologists work?

Certified CT technologists work in hospitals, private offices, surgical centers, oncology centers, and with mobile CT imaging companies and temporary medical staffing agencies.

## What skills are needed to excel in this profession?

- Good critical thinking skills
- Good written and verbal communication skills
- The ability to work well with others and care for patients
- A professional attitude and appearance

Note to students: You are entering a profession that operates 24 hours a day, 7 days a week, and 365 days a year. Work shifts include day, evening, and night hours.

## Why should I choose HCC?

- HCC has a flexible clinical practicum, which provides students with exposure to a variety of clinical settings, learning experiences, and locations
- Graduates of HCC's CT Imaging Program are eligible to sit for the American Registry of Radiologic Technologists (ARRT) certification examination
- The CT Imaging Program focuses on the physics, theories, application, and instrumentation of computed tomography equipment needed for the ARRT certification examination




- Course content covers imaging of the body areas in relation to their anatomical composition, pathology, and physiology, as well as image quality
- Lecture courses for the CT Imaging Program are provided online or in an online/lecture hybrid format

## What are the admission requirements?

Students need to apply to the college, submit official transcripts, and also apply to the computed tomography program by August 15 for the fall semester and December 15 for the spring semester. The program is open to current ARRT certified radiographers and students enrolled in the sophomore year of a JRCERT accredited program. All certified technologists must submit a copy of their current ARRT certification card and current Maryland State license, along with a current resumé/curriculum vitae to the Office of Admissions and Enrollment Management. Admission requirements for the clinical education component of the CT Imaging Program include satisfactory completion of a health form and immunizations, drug screen, background checks through fingerprinting, and submitting a valid American Heart Association Healthcare Provider card.

## PROGRAM OPTIONS

 Certificate, Computed Tomography Imaging

## CAREER OUTLOOK

### MEDIAN SALARY

**\$61K**

for Radiologic and MRI Technologists

### EMPLOYMENT



264,000 jobs in the U.S.  
6% growth in the next ten years

About 16,600 openings for radiologic and MRI technologists are projected each year, on average, over the decade. Many of those openings are expected to result from the need to replace workers who transfer to different occupations or exit the labor force, such as to retire.

(source: [www.bls.gov/ooh](http://www.bls.gov/ooh))

Students who have been out of the patient care environment for more than two years may be considered for admission upon successful completion of Patient Care for Advanced Medical Imagers (RAD-213) with a minimum grade of 75 percent or higher.

## What are the program requirements?

All computed tomography students must:

1. Receive a minimum grade of 75 percent in each computed tomography course.
2. Meet program competency requirements.
3. Students have two years to complete education and clinical requirements in order to be eligible to submit an application to ARRT.
4. Students planning to enroll in the clinical education component of the program must meet with the course instructor no later than one month prior to start of the academic semester.
5. Enrollment in RAD 220 must be within 12 months of completing RAD 218.

Students who receive a final mark of unsatisfactory in the clinical laboratory or clinical experience despite a passing theory grade, will not be permitted to progress in the computed

tomography program and will receive a final grade of "F" for the course and are not eligible for readmission.

Students who do not meet program, course, technical, health and radiation standards that result in termination from the computed tomography program by the College are not eligible for readmission. This includes students who cannot meet safety standards, and students who violate the college's Honor Code and Standards of Conduct; the radiography program Standards of Conduct; and the American Registry of Radiologic Technologists Standards of Ethics.

### How long will it take me to complete this program?

On average, it takes five semesters to complete this program. The program can be completed in less time depending on the number of classes a student takes in a given semester. A grade of C or higher is required in each course to progress to next semester. Students enrolled in the CT Imaging practicum courses are required to complete a minimum of 120 clinical education hours each semester.

### Do the instructors have experience in CT?

HCC's instructors are ARRT certified in CT imaging and have clinical experience as CT technologists.

### Will HCC provide the clinical sites for the student?

All students enrolled in the computed tomography program will be assigned to one of the clinical sites affiliated with HCC.

### How many days or nights will the student have to attend lecture classes at HCC?

The majority of the courses in the CT Program are hybrid-based. Some travel to the HCC campus is required.

### Additional Program Information

Additional information on program requirements including criminal background checks, drug screening, clinical site placement, readmission to the CT Program, and transferring from another college or CT Program can be found at [www.hagerstowncc.edu/medical-imaging](http://www.hagerstowncc.edu/medical-imaging).

For more information about HCC graduation rates, the median debt of students who completed the program, and other important information, visit [www.hagerstowncc.edu/medical-imaging](http://www.hagerstowncc.edu/medical-imaging).

### Vaccine Requirements

Several immunizations are required as part of your health documentation, including: HEP B 3 vaccine series AND Positive immunity titer, QuantiFERON®-TB, Tetanus (Tdap) within last 10 years, Varicella 2 vaccine series AND positive immunity titer, MMR 2 vaccine series AND positive immunity titer, and the Flu vaccine (fall and spring), and the COVID-19 vaccine.

Since many individuals fail to maintain immunity over time, you may be required to repeat vaccination series/ receive a booster in order to demonstrate positive immunity. Positive immunity titers are required to proceed with Clinical or Externship rotations in all Health Sciences Programs. It is the student's responsibility to verify immunity prior to the start of the program and take the necessary steps to

ensure positive immunity by the health documentation deadline provided to each cohort.

### Other Requirements

An American Heart Association (AHA) Basic Life Support is required for healthcare providers (the AHA version is required for your licensure exams).

### Certificate

## Computed Tomography Imaging

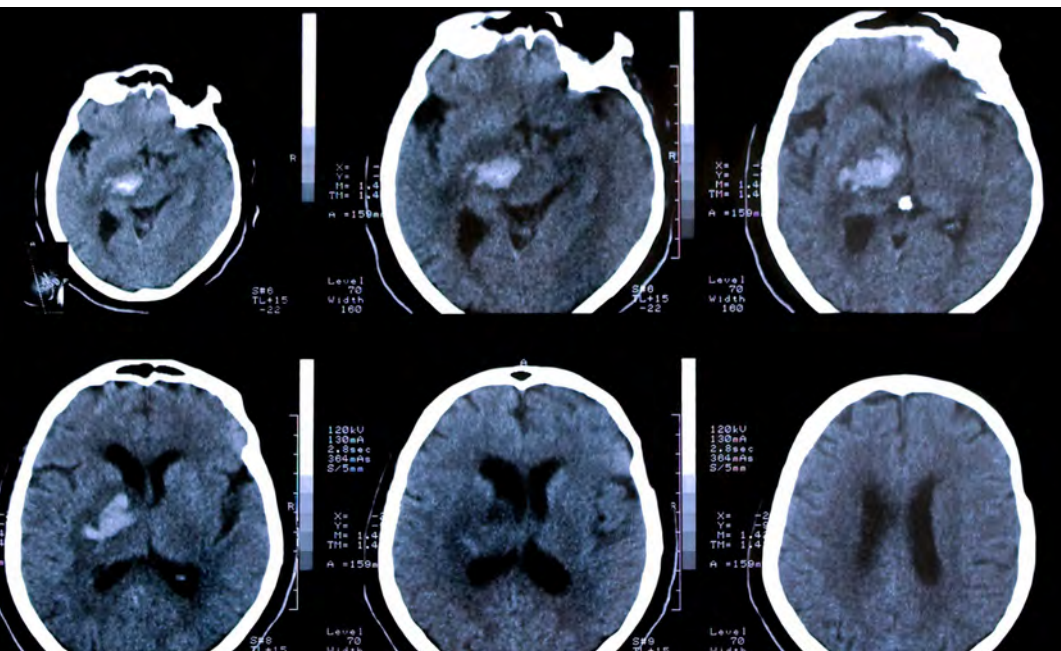
Program Requirements		16 credits
RAD 212	Cross-Sectional Anatomy.....	3
RAD 215	Pathology for Imaging Sciences .....	3
RAD 218	Principles of CT Imaging .....	4
RAD 220C	CT Imaging Practicum I.....	3
RAD 220AC	CT Imaging Practicum II.....	3

Certificate Requirement ..... 16

### Technical Standards

There are technical standards and skill requirements which students are expected to possess and demonstrate in order to be successful in this program. More information on these standards can be found at [www.hagerstowncc.edu/medical-imaging](http://www.hagerstowncc.edu/medical-imaging).

2069 3/23



### Contact Information:

Michelle McDaniel  
Assistant Professor,  
Medical Imaging Programs  
240-500-2549  
[mlmcdaniel@hagerstowncc.edu](mailto:mlmcdaniel@hagerstowncc.edu)

Kimberley Hamburg  
Administrative Office Associate II  
Health Sciences Division  
240-500-2383  
[kshamburg@hagerstowncc.edu](mailto:kshamburg@hagerstowncc.edu)

