

# COMPUTED TOMOGRAPHY (CT) CERTIFICATE PROGRAM

# PROGRAM ADMISSION INFORMATION BOOKLET



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# **ABBREVIATIONS**

ARRT	American Registry of Radiologic Technologists
ASRT	American Society of Radiologic Technologists
CT	Computed Tomography
GPA	Grade Point Average
JRCERT	Joint Review Committee on Education in Radiologic Technology
NMTCB	Nuclear Medicine Technology Certification Board
RDT	Radiologic Technology

#### **INTRODUCTION**

Thank you for your interest in the Computed Tomography (CT) certificate program offered online by Wor-Wic Community College. The CT handbook outlines the selection process and explains the procedures students must follow to be eligible for acceptance into this limited admission program.

# PLEASE READ THIS ENTIRE BOOKLET. IT IS YOUR RESPONSIBILITY TO MAKE SURE YOU HAVE COMPLETED <u>ALL</u> STEPS OF THE ADMISSION PROCESS BY THE STATED DEADLINES.

#### **CONTACT INFORMATION**

If you have any questions, please contact us at the following:

#### Admissions

Wor-Wic Community College 32000 Campus Drive Salisbury, MD 21804 (410) 334-2895

#### **Radiologic Technology Department**

Wor-Wic Community College 32000 Campus Drive; AHB 307 Salisbury, MD 21804 (410) 572-8740

## COMPUTED TOMOGRAPHY (CT) PROGRAM FACULTY AND STAFF

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## ACCREDITATION

Wor-Wic is a state-approved two-year college. It is accredited by the Middle States Commission on Higher Education, 3624 Market St., Philadelphia, PA 19104, (267) 284-5000. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The Wor-Wic Community College Radiologic Technology Program is nationally accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N Wacker Dr., Suite 2850, Chicago, IL, 60606-31802, (312) 704-5300. The JRCERT is the only agency recognized by the United States Department of Education (USDE) and the Council for Higher Education Accreditation (CHEA), for the accreditation of traditional and distance delivery educational programs in radiography, radiation therapy, magnetic resonance, and medical dosimetry.

#### **CT MISSION STATEMENT**

The Computer Tomography (CT) certificate program at Wor-Wic Community College provides certified radiologic technologists with a comprehensive, didactic, and clinical CT education necessary for employment and/or career advancement in the healthcare industry.

CT Program Goals	Student Learning Outcomes
Demonstrate clinical competence performing CT imaging procedures.	1. Students will practice identifying anatomical structures and explain their positional relationships on CT exams.
	2. Students will select appropriate CT protocols for CT exams performed on particular patient age groups.
Apply critical thinking and problem solving skills in the performance of emergent and nonemergent CT exams.	1. Students will evaluate the diagnostic quality of CT images.
	<ol> <li>Students will accurately select CT scan parameters for emergent clinical indications.</li> </ol>
Exemplify professional behaviors according to the ARRT Standards of Ethics for the Radiologic Technology profession.	1. Students will educate patients about CT procedures.
	2. Students will demonstrate the professional behaviors of a CT technologist.

# **CT GOALS & LEARNING OUTCOMES**

## **CT MODALITY**

Computed Tomography (CT) uses x-rays to image the body in cross-section. Images appear as "slices" permitting better visualization of anatomical structures. Individuals interested in pursuing a career as a CT technologist, must first obtain certification as a diagnostic radiologic technologist or nuclear medicine technologist.

CT technologists are radiologic technologists with advanced specialization in Computed Tomography. CT technologists are responsible for the preparation and administration of contrast media. Before completing injections, technologists must obtain informed consent and document the patient's pertinent medical history relevant to the CT exam. CT technologists perform venipuncture and monitor the patient for adverse reactions to the contrast media injection. In the CT modality, technologists must understand cross-sectional anatomy, identify pathologies, and alert the radiologist when critical findings are discovered.

Besides performing routine CT exams, certified CT technologists assist the radiologists in interventional CT guided procedures such as biopsies and drainages. CT is the gold standard for evaluating traumatic patient conditions. Therefore, CT technologists must assess patients for shock and other medical emergencies that may occur in the CT suite.

# **CT CURRICULUM DESIGN**

The CT certificate program design is based upon the current American Society of Radiologic Technologists (ASRT) CT curriculum, the American Registry of Radiologic Technologists (ARRT) certification exam, and the ARRT Computed Tomography Task Inventory. The CT certificate program course outline includes patient care and safety, advanced sectional anatomy, image production and evaluation, imaging procedures, and a seminar course preparing students to take the ARRT CT certification exam. These courses are offered completely online permitting radiologic technology professionals the ability to continue working while obtaining CT education.

In addition to the online didactic course work, there are three clinical practicum courses. Students will perform CT exams under the supervision of certified radiologic technologists. The following describes the CT clinical practice requirements as defined by the ARRT:

"Candidates for the Computed Tomography certification and registration must document performance of a minimum of 125 repetitions of computed tomography procedures" (ARRT, 2017). Specific CT exam types are explained within the ARRT Computed Tomography Clinical Practice document. Completed CT exams must be verified by the certified radiologic technologist or interpreting physician.

## **CT EMPLOYMENT OPPORTUNITIES**

CT technologists are a vital part of the healthcare team as CT exams are completed 24 hours a day; seven days a week, in the hospital setting. Additionally, CT technologists are employed in urgent care facilities and outpatient offices providing CT services. According to Consumer Reports, "80 million CT scans are performed each year in the U.S." With the increasing need of CT exams used to diagnose pathologies, identify strokes and traumatic patient injuries, certified CT technologists are needed to provide the expertise in completing these scans.

# CT STUDENT PHYSICAL AND TECHNICAL JOB REQUIREMENTS

The radiologic technology profession requires a variety of physical job requirements to function in the clinical environment. In addition to the physical requirements, students are expected to hear and respond to communicated commands, visually evaluate radiographic images, and stand for extended hours while performing radiographic exams. The following encompasses the physical and technical requirements of a CT student:

- 1. Students are expected to lift, push, move and/or roll patients to position for radiographic exams. This requires the student to kneel, bend, and lift while caring for patients. In addition, students are expected to move radiology equipment necessary to obtain the radiographic image. During clinical rotations, students push stretchers and wheelchairs, assisting with patient transport throughout the healthcare facility. Student should be capable of lifting a minimum of 50 pounds to assist in safe patient transfers.
- 2. Students are expected to stand for extended hours during clinical rotations while performing radiographic exams. Sitting in patient care areas is prohibited.
- 3. Students are required to wear lead protective aprons and thyroid shields for extended periods of time during the performance of specific radiographic examinations.
- 4. Students should possess fine motor abilities to accurately draw up specific measurements of medication into syringes, safely handle needles, and establish sterile fields. In addition, students must be capable of using small, computerized equipment for patient monitoring.
- 5. Students are required to respond to the verbal instructions of physicians, staff, and clinical instructors. Students should possess the auditory ability to hear patient requests and respond to patient needs. In addition, students must be able to hear and respond in accordance to monitoring instrument sounds and directives from intercom devices (such as a code blue).
- 6. Students are required to visually evaluate radiographic images according to shades of gray and varying degree of blackness displayed upon the imaging monitor. Students should possess the visual acuity to distinguish small details on a radiographic image. Students should possess peripheral vision and depth perception abilities to recognize objects, people, and equipment especially within sterile environments and trauma settings.
- 7. Clinical affiliate policies dictate students are not permitted to complete clinical rotations with any of the following orthopedic devices: boot, cane, walker, cast etc. as these limitations would potentially compromise the safe transfer of patients and prevent the student from safely moving x-ray equipment.

## CLINICAL AND ACADEMIC REQUIREMENTS

CT technologists must possess the ability, knowledge, and skill to function in a variety of clinical situations and to provide a broad spectrum of patient care. All applicants for admission must be able to perform the essential clinical skills as well as the academic requirements of the CT program.

The clinical and academic requirements of the CT program require the student to have the capacity to observe and communicate effectively, motor ability to perform CT examinations, emotional stability to exercise good judgment, ability to work effectively in stressful situations, safely lift, move, and transfer patients, and the intellectual ability to synthesize data and solve problems.

## **CLINICAL SITE AFFILIATION AGREEMENTS**

Students are required to obtain their clinical site for the clinical practicum component of the CT certificate program. The clinical site must be accredited by the Joint Commission or equitable accreditation agency for students to complete CT clinical rotations. Evidence of the clinical site's accreditation status must be provided to the Wor-Wic Community College Radiologic Technology Department. An affiliation agreement must be completed between the college and the clinical site for students to complete CT clinical rotations.

#### **Radiologic Technology Computed Tomography (CT) Certificate**

CT Certificate Courses					
Spring Semester		Credit Hours			
CTC 110	Patient Care and Safety	3			
CTC 112	Advanced Sectional Anatomy	3			
♦CTC 121	Clinical Practicum I	<u>2</u>			
		8			
Summer Semester					
* CTC 113	Image Production and Evaluation	3			
* CTC 115	Imaging Procedures	3			
<b>*</b> ♦ CTC 122	Clinical Practicum II	<u>2</u>			
		8			
Fall Semester					
* CTC 123	Seminar and Clinical Practicum III	<u>3</u>			
		3			
	Total	19			

\* This course has a CT prerequisite

• This course can be waived by Radiology Department Head for students not requiring clinical practicum experience

# **CT ADMISSION REQUIREMENTS**

#### **General CT Admission Requirements**

The CT certificate program has a competitive admission process. It is a limited enrollment program, accepting 16 students in each class. The following are the eligibility requirements for acceptance into the CT certificate program:

- 1. Complete college admission application.
- 2. Submit an official transcript confirming graduation from a JRCERT or JRCNMT accredited program.
- 3. Submit current radiography or nuclear medicine registration awarded from the ARRT or NMTCB.
- 4. Submit current state license awarded from the state where clinical practicum rotations will be performed.
- 5. Supply current CPR certification card.
- 6. Complete and successfully pass background check and drug screen for entrance into the clinical practicum.
- 7. Submit CT certificate application form.
- 8. Complete the online CT student orientation in Blackboard.
- Attain computer access with reliable internet connection to complete the online CT certificate program. The computer should have at least: 4 GB of RAM, Windows 7 or MAC OS 10.5, or higher. Chrome or Firefox are the recommended browsers for completing online work in Blackboard.
- 10. Obtain a clinical site to perform CT exams. The clinical site must be accredited by an authorizing organization such as The Joint Commission or American College of Radiology. Evidence of the clinical site's accreditation must be submitted to the Wor-Wic Community College Radiologic Technology Department.

#### **CT Applicant Ranking Process:**

The following outlines the CT admission process:

#### **First Preference:**

Graduates from the Wor-Wic Radiologic Technology program may directly progress into the CT program following graduation and successfully passing the ARRT certification exam. Students enrolled into the radiologic technology program will be given first preference into the CT certificate program. Prospective students must submit a CT application and complete the general admission requirements by the **first Friday in November** to receive first preference in the selection process.

#### Second Preference:

In county certified radiologic technologists, meeting the general CT admission process requirements will be given second preference for admission into the CT certificate program. Prospective students must submit a CT application and complete the general admission requirements by the **last Friday in November** to receive second preference in the selection process.

#### Third Preference:

Out-of-county and out-of-state certified radiologic technologists, meeting the general CT admission process requirements will be given third preference selection for admission into the CT certificate program. Prospective students must submit a CT application and complete the general admission requirements by the **second Friday in December** to receive second preference in the selection process.

If there are open seats in the CT program after the second Friday in December, prospective students completing the CT general admission requirements will be selected in the order the applications are received.

It is the policy of Wor-Wic Community College not to discriminate on the basis of age, gender, race, color, religion, national origin, marital status, sexual orientation, genetic information, or disability in the admission and treatment of students, access to educational programs and activities, and terms and conditions of employment. Student-related inquiries should be directed to the dean of student development at 410-334-2893, Wor-Wic Community College, 32000 Campus Drive, Salisbury, MD, 21804.

#### COSTS

Prospective students interested in the CT certificate program should refer to the college website for current tuition rates for credit classes. In addition to tuition, other semester costs include registration fees, books, uniforms, and insurance. An online course fee per credit hour and technology fee are included in program costs. Program acceptance is contingent upon successfully passing a background check and drug screen. Once accepted into the CT certificate program, a health inventory, updated immunizations, and flu shot are required for participation in clinical rotations. Additional information about these requirements will be provided upon program acceptance.

## **CT SELECTION PROCESS**

Due to the limited number of spaces available in CT certificate program, satisfactory completion of the admission requirements does not guarantee program acceptance.

#### Acceptance is contingent upon satisfactorily passing the background check and drug screen.

## **PROGRAM REQUIREMENTS**

Student accepted into the CT certificate program are required to complete and satisfactorily pass a background check and drug screen. Failure to satisfactorily pass the background and drug screen prevents the student from entering into the CT certificate program.

If selected for admission, the acceptance form must be submitted by the due date stated within the acceptance letter. The radiologic technology department will register students for the CT courses. Deadlines to complete the physical examination, background check, and drug screen, and provide proof of: immunizations (MMR, varicella, tetanus, varicella, PPD), American Heart Association CPR BLS for health care providers certification, and flu shot will be communicated in the CT certificate student orientation information. Proof of Hepatitis B shot series or denial is also required. Failure to provide this information may disqualify the student from the program.

# CT CERTIFICATE PROGRAM CLINICAL REQUIREMENTS

The CT certificate program has a clinical component. Students will complete CT exams under the supervision of CT technologists in the clinical setting. Keeping an accurate account of completed CT exams is a requirement for the Wor-Wic Community College CT certificate program and for eligibility to sit for the ARRT CT certification examination. Students should refer to the ARRT CT clinical requirements that identify the types of CT exams students must perform and the number of CT exam repetitions necessary to sit for the CT exam. The clinical component can be waived by the Radiology Department head for students that have satisfactorily completed the ARRT exam repetition requirements.

Students are required to secure their own CT clinical site for the CT clinical practicum courses. Clinical sites must be accredited in order to be used for the completion of CT exams. Students must submit documentation demonstrating the accreditation of the clinical site. The clinical site must engage in an affiliation agreement with the college, for students to perform CT exams in the clinical practicum. CT rotations may not be performed at any facility without a signed affiliation agreement between the college and the clinical site.

#### HEALTHCARE PACKET AND IMMUNIZATIONS RECORDS

When a student leaves the program (for any reason), the student's healthcare packet and all immunization records, including flu shots, CPR, and PPD results, will be destroyed. Neither copies nor originals will be returned to the student or provided to a third-party including clinic sites, employers, or another program at Wor-Wic.