



CERTIFICATE IN COMPUTED TOMOGRAPHY (CCT)

PROGRAM DESCRIPTION

The computed tomography imaging modality uses x-radiation and computers to acquire sectional images of the human body. Modern CT scanners allow images to be reconstructed into multiple planes, giving physicians a more advanced way to diagnose injuries and disease than with conventional radiography. CT technologists use a detailed understanding of human anatomy, imaging protocols, and critical thinking skills to produce high-quality images for medical interpretation and diagnosis by the radiologist. CT technologists must be able to work independently in the course of their practice. A clear understanding of the physical principles governing CT image acquisition and of cross-sectional anatomy is necessary to function adeptly as a technologist. The CT technologist must exhibit excellent patient care skills and a thorough understanding of contrast administration safety at all times. CT technologists require advanced training and education and the ability to use highly specialized equipment in the course of their practice. The program is designed to cover the Content Specifications for the Advanced Registry in Computed Tomography offered by the American Registry of Radiologic Technologists (ARRT). The program offers ground-based instruction by professors who are registered and experienced in the use of CT.

PROGRAM OBJECTIVES

Upon completion of this program students should be able to demonstrate the ability to:

1. Perform CT scans using proper protocol selection and patient positioning.
2. Utilize venipuncture skills to obtain patient IV access for contrast administration.
3. Use computer-controlled power injection equipment.
4. Protect patients and personnel utilizing radiation safety procedures.
5. Provide excellent patient care.

POTENTIAL JOB POSITION TITLES

Potential entry-level job position title is CT technologist. CT technologists are frequently employed in hospitals, outpatient imaging centers, and urology offices. There are also opportunities in applications training/teaching and the medical imaging industry.

SPECIAL ADMISSIONS REQUIREMENTS

The Certificate in Computed Tomography Advanced Imaging is designed for technologists who are already registered in radiography RT (R), radiation therapy RT (T), or nuclear medicine RT (NM) OR NMTCB, ultrasound RT (US), or RDMS.

PROGRAM LENGTH

The average length of time for a student taking a full course load is 1 semester (4 months).

PROGRAM CONTENT

A minimum of 16 semester credit hours is required for graduation.

REQUIRED COURSES

All courses, 16 semester credit hours, are required.

Course Number	Course Name	Prerequisite	Credit Hours
RT 211	Computed Tomography Theory I	None	3.0
RT 216	Computed Tomography Clinical Practice I	RT 260	4.0
RT 222	Computed Tomography Theory II	RT 211	3.0
RT 232	Computed Tomography Clinical Practice II	RT 216 and RT 260	4.0
RT 260	Cross-Sectional Anatomy	RT 102 and RT 121	2.0

Distribution of Clock Hours by Course					
Course Number	Lecture	Lab	Clinical/ Practicum	Total Clock Hours	Credits
RT 211	45.0			45.0	3.0
RT 216			180.0	180.0	4.0
RT 222	45.0			45.0	3.0
RT 232			180.0	180.0	4.0
RT 260	30.0			30.0	2.0
Totals	120.0	0.0	360.0	480.0	16.0