

## COMPUTED TOMOGRAPHY PROGRAM DATA

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### MISSION STATEMENT:

The mission of The Community College of Baltimore County Computed Tomography program is to prepare qualified students to be competent Computed Tomography Technologists. This is accomplished primarily by providing a carefully designed curriculum that uses the resources of CCBC and the Program's clinical sites to provide students with a foundation of higher education based on the liberal arts and sciences. Secondly, the Program compliments the overall college campus mission by educating health care providers who will remain in the area as productive working citizens and directly contribute to the betterment of the public health of the community.

### PROGRAM GOALS:

The program's goals are to educate technologists to perform Computerized Tomography (CT) at a highly competent level. The curriculum has been designed so that students may achieve the following:

1. The knowledge and skills necessary to produce detailed cross sectional images to aid Radiologists in diagnosing diseases and disorders
2. Demonstrate the behavior and skills necessary to function as a competent, entry-level Advanced Modality Technologist.
3. Students will use critical thinking and problem solving skills

### LEARNING OUTCOMES:

1. Students will provide appropriate patient care
2. Students will practice appropriate radiation safety principles for the protection of patients
3. Students will demonstrate the ability to analyze cross sectional images
4. Students will demonstrate the ability to recognize common pathologies on scans
5. Students will be able to recognize the signs and symptoms of a contrast reaction
6. Demonstrate the ability to adjust imaging parameters and options
7. Students will demonstrate that they comprehend the principles and instrumentation involved in Computed Tomography.

## TECHNICAL STANDARDS:

### A. PERFORMANCE OF THE DUTIES OF THE CT TECHNOLOGIST ENCOMPASSES THE FOLLOWING:

1. Technical Skills:
  - i. The ability to use Computerized Tomography equipment to perform diagnostic procedures in a safe manner consistent with minimal radiation exposure and maximum image quality.
  - ii. The ability to evaluate and interpret requests for CT procedures and determine the best method of achieving optimal results.
  - iii. Select exposure factors and accessory devices for all procedures with consideration of patient size, age, and extent of disease.
  - iv. Evaluate images to ascertain that they contain proper identification and are of diagnostic value.
  
2. Physical Requirements:
  - i. Sufficient strength and fine motor coordination to:
    - a. Be able to push, pull, and lift 25 pounds.
    - b. Push a stretcher, wheelchair or other transportation device without injury to self, patient, or others.
    - c. Assist all patients, according to individual needs and abilities, in moving, turning and transferring from transportation devices to the CT couch, etc.
    - d. Accurately draw up sterile contrast media and other solutions without contaminating the syringe and/or needle, etc.
  - ii. Adequate eyesight to:
    - a. Observe the patient in order to assess the patient's condition and/or needs from a distance of, at least, 20 feet.
    - b. Can see numbers, letters, calibrations, etc. of varying sizes located on equipment utilized by a CT technologist.
  - iii. Sufficient hearing to:
    - a. Respond to patient's verbal inquiries
    - b. Communicate with other personnel involved in the care of the patient
    - c. Initiate timely response to audible alarms and signals

3. Interpersonal Skills:
  - i. Work in a professional manner with patients of all ages, races, creeds, and physical conditions while maintaining and respecting patient confidentiality.
  - ii. Work with newborns, children, adolescents, adults and geriatrics in a safe and helping manner.
  - iii. Communicate and receive written and verbal instructions and carry them out using proper channels of communication.
  - iv. Use accurate verbal and written communications in English to:
    - a. Interpret clinical data
    - b. Read the patient's medical chart and/or physician's orders.
    - c. Comprehend and carry out physician requests
    - d. Provide patient/public education related to CT procedures and radiation
    - e. Legibly write patient history.
  
4. Intellectual Ability and Emotional Stability to:
  - i. Exercise independent judgment and discretion in the technical performance of CT imaging procedures.
  - ii. Perform mathematical problems quickly and accurately
  - iii. Work efficiently in stressful situations
  - iv. Complete program requirements

**B. Working Conditions:**

1. Works in an air-conditioned environment with minimal exposure to noise and humidity
2. Has frequent exposure to blood and body fluids from patients
3. Has minimal exposure to x-ray radiation