

Course Competency

RTE 2940C Computed Tomography Clinical Education

Course Description

The course provides the radiologic technologist practical, first-hand experience of scanning procedures and techniques at a supervised clinical site; theories learned in RTE 2571 will be applied. Students will observe, assist, and perform Computed Tomography under the supervision and guidance of a qualified CT Technologist. Prerequisite RTE 2571 and RTE 2762.

Course Competency	Learning Outcomes
<p>Competency 1:The student will demonstrate knowledge of the history and evolution of Computed Tomography (CT) and the most common uses of CT scanning in medical imaging of Surgical Technology by:</p>	<p>1. Information Literacy</p>
<ol style="list-style-type: none"> 1. 1. Describing the common uses of CT scanning. 2. 2. Identifying the history and evolution of computed tomography. 	
<p>Competency 2:Course Competency 2: The student will demonstrate an in-depth description of major CT equipment components and the sequence of events from the application of electrical current to the radiographic tube to the image by:</p>	<p>1. Critical thinking</p>
<ol style="list-style-type: none"> 1. Describing the major CT equipment components 2. Explaining the sequence of events from the application of electrical current to the radiographic tube to the image 	
<p>Competency 3:Course Competency 3: The student will demonstrate the methods of acquiring computed tomography images, the process of data acquisition and what factors influence that process by:</p>	<p>1. Information Literacy</p>
<ol style="list-style-type: none"> 1. Identifying the methods of acquiring CT 	

<p>images.</p> <p>2. Describing the process of data acquisition.</p>	
<p>Competency 4:Course Competency 4: The student will demonstrate the steps for computed tomography image reconstruction and the post-processing techniques needed for image enhancement by:</p>	<p>1. Information Literacy</p>
<p>1. Describing the steps for CT image reconstruction.</p> <p>2. Identifying post-processing techniques for image enhancement.</p>	
<p>Competency 5:Course Competency 5: The student will demonstrate the methods used to measure patient dose and the role of the computed tomography technologist in reducing radiation exposure by:</p>	<p>1. Critical thinking</p> <p>2. Information Literacy</p>
<p>1. Explaining the procedures used to measure patient dose.</p> <p>2. Describing the CT technologist role in reducing radiation exposure.</p>	
<p>Competency 6:Course Competency 6: The student will demonstrate (1) the methods used to determine image quality in computed tomography and factors that affect image quality, to include CT image artifacts and the factors that influence artifacts and (2) the tests associated with quality control programs.</p>	<p>1. Critical thinking</p>
<p>1. Describing the methods used to determine image quality in computed tomography and factors that affect image quality.</p> <p>2. Explaining how artifact affects image quality.</p> <p>3. Identifying tests associated with quality control programs.</p>	
<p>Competency 7:Course Competency 7: The student will demonstrate the proper position of a patient and select appropriate scan parameters for common CT examinations by:</p>	<p>1. Critical thinking</p>

<p>1. Identifying the proper position of a patient and the appropriate scan parameters for common CT examinations.</p>	
<p>Competency 8:Course Competency 8: The student will demonstrate the current trends and basic procedures in computed tomography and how modifications are used for trauma and pathology by:</p>	<p>1. Critical thinking</p>
<p>1. Explaining current trends and procedures in CT and how modifications are used for trauma and pathology.</p>	

Updated: FALL TERM 2023