Course Descriptions

CT102 – Cross Sectional Anatomy and Pathology   Clock Hours: 40

This course is delivered in a traditional classroom style and provides the student with fundamental anatomy and pathology associated with computed tomography and magnetic resonance imaging of the head, neck, face, spine, thorax, abdomen, pelvis, upper and lower extremities. The various structures will be demonstrated in the axial, sagittal and coronal imaging planes.

Pre-requisite: Admission to the program

CT104 - Introduction to Computed Tomography Online   Clock Hours: 24

This course is delivered online and provides the student with information necessary to enter into the computed tomography clinical setting. Topics to include: Basic principles; screening procedures; patient monitoring; dose; safety precautions; contrast agents used; contraindications; equipment operated; professional roles and behavior; processing of images; routine examinations and protocols utilized; image artifacts; and compensation. Students will receive an introduction to the physics associated with computed tomography.

<u>Pre-requisite:</u> Admission to the program

CT103 – Computed Tomography Physics*   Clock Hours: 48

This course is delivered in a traditional classroom style or online and provides the student with a comprehensive study of the physics associated with computed tomography. Topics will include: Terminology associated with CT; history and generations of CT, EBCT, spiral scanning and multi-row scanning; CT equipment; image processing; filters and algorithms; image quality; image noise; advanced CT imaging options; artifacts; contrast administration; patient safety; quality assurance; radiation risk factors; and dose.

<u>Pre-requisite:</u> Program Approval

CT200 – Computed Tomography Clinical Experience   Clock Hours: 300

Computed tomography technologists operate advanced imaging equipment to obtain computer-generated sectional images of the human body. Computed tomography technologists must be able to provide quality patient care while working closely with the radiologist in a fast-paced, high-volume area. The clinical portion of the Computed Tomography Program is designed to prepare students to be competent, efficient working technologists. Upon successful completion of the CT clinical course, students will have met the examination requirements for the ARRT and be eligible to sit for the CT post-primary certification exam.

<u>Pre-requisite:</u> CT104

CT201 - Computed Tomography Physics   *   Clock Hours: 48

This course is delivered in a traditional classroom style or online and provides the student with a comprehensive study of the physics associated with computed tomography. Topics will include: Terminology associated with CT; history and generations of CT, EBCT, spiral scanning and multi-row scanning; CT equipment; image processing; filters and algorithms; image quality; image noise; advanced

CT imaging options; artifacts; contrast administration; patient safety; quality assurance; radiation risk factors; and dose.

Pre-requisite: Program Approval

*Students will take CT103 OR CT201,and taking either requires program approval.