

Minnesota State College Southeast

RADT 2660: Computed Tomography

A. COURSE DESCRIPTION

Credits: 2

Lecture Hours/Week: 2

Lab Hours/Week: 0

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This elective online course introduces the basic principles of computed tomography (CT) imaging and sectional anatomy. History of CT, current equipment and practices, radiation protection specific to CT, and anatomic appearance of various structures in a cross-sectional reference will be discussed. Specific emphasis will be on methods of dose reduction to support the Image Gently campaign. Images from various modalities will be used to demonstrate radiographic cross-sectional appearance. This course will be a basic CT course with emphasis on CT registry exam content. (Prerequisites or concurrent: BIOL2512, RADT 2601, RADT2605, RADT2611 or graduate of associate degree or certificate program in medical imaging/therapy or radiography - official transcript or current ARRT credential review required.) (2 credits: 2 lecture/0 lab)

B. COURSE EFFECTIVE DATES: 06/16/2009 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Obtain working knowledge of CT imaging system that includes equipment and scanning software
2. Introduce student to the identification of cross-sectional anatomy

D. LEARNING OUTCOMES (General)

1. Describe components of the CT imaging system
2. Describe the application of CT terminology.
3. Examine the CT image processing steps
4. Analyze CT images
5. Identify the types and appearance of artifacts most commonly affecting CT images
6. Identify anatomic planes and positions
7. Identify selected neck and head anatomical structures in gross and cross-section views
8. Identify selected thoracic anatomical structures in gross and cross-section views
9. Identify selected abdominal and pelvic anatomical structures in gross and cross-section views.
10. Identify radiation protection for CT
11. Identify the "Image Gently" campaign

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted