Course Description

RTE2010 | New Imaging Modalities in Radiology | 1.00 credit

This course will enable the student to compare and contrast the current imaging modalities with the emerging technologies available in Radiology departments. Included in this course will be picture archiving and communications systems (PACs), digital imaging, and fusion imaging. This course includes a preparation for the American Society of Radiologic Technologists Registry exam in Radiography.

Course Competencies

Competency 1: The student will be able to demonstrate basic knowledge, comprehension and application of pictural archiving and communications systems (PACS) by:
1. Describing the components of PACS
2. Identifying the advantages of PACS
3. Identifying common problems associated with retrieving/viewing images within a PACS

Competency 2: The student will be able to demonstrate basic knowledge, comprehension and application of fusion imaging by:
1. Comparing and contrasting fusion imaging with diagnostic radiography
2. Describing the parameters of fusion imaging
3. Identifying the uses of fusion imaging in the diagnosis of disease

Competency 3: The student will be able to demonstrate basic knowledge, comprehension and application of digital imaging by:
1. Recognizing the components of a digital imaging system
2. Comparing and contrasting digital imaging and conventional radiography
3. Describing the image production in digital imaging
4. Discussing electronic imaging equipment used in radiography and fluoroscopy
5. Explaining flat panel detectors used in digital electronic x-ray equipment

Learning Outcomes:
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Use computer and emerging technologies effectively