RADT2224 - Imaging Equipment

Credits:	4 (2/2/0)
Description:	This course is designed to establish a knowledge base in radiographic, fluoroscopic, mobile and tomographic equipment (including computed tomography) requirements and design including circuitry of the x-ray machine. The content will also provide a basic knowledge of quality control. Computer applications in the radiologic sciences related to image capture, display, storage and distribution are presented, as well.
Prerequisites:	• RADT1180 • RADT1190
Corequisites:	• RADT2101 • RADT2110
Pre/Corequisites*:	
Competencies:	1. Identify the components of a basic radiographic unit. 2. Explain the components of an x-ray tube. 3. Identify the components of various generators used in radiographic units. 4. Identify the components of digital and conventional fluoroscopic units. 5. Identify various types of imaging units and their usage. 6. Identify the components of electronic and digital imaging units. 7. Explain the various accessories used in radiographic procedures. 8. Explain the purpose, principles and applications of linear tomography. 9. Perform quality control procedures on various types of radiographic equipment. 10. Identify the components of a digital radiographic unit. 11. Determine the functions of the components of automatic exposure control (AEC) devices. 12. Discuss mobile units in terms of purpose, components, types and applications. 13. Identify the components and functions of computed tomography equipment. 14. Explain the processing considerations required for digital imaging. 15. Explain the components of the electronic image archiving systems. 16. Compare and contrast analog and digital imaging systems. 17. Explain the components involved in x-ray production. 18. Explain the purpose of the components involved in x-ray production. 19. Explain the target interactions during x-ray production. 20. Discuss the factors that affect x-ray emission spectrum. 21. Describe the efficiency of x-ray production.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.