LSR1230 - Imaging Equipment and Quality Control

Credits:	3 (2/1/0)
Description:	This course addresses the functional, physical and design components of radiographic (fixed and mobile) equipment. Intricate details of the equipment are covered, including but not limited to equipment circuitry, generators, transformers, x-ray tube components and functions, and digital imaging detectors and processing components. The course is also designed to introduce the student to radiographic equipment and accessory quality control.
Prerequisites:	• LSR1120 • LSR1140 • LSR1160
Corequisites:	• LSR1220 • LSR1240 • LSR1260 • LSR1280
Pre/Corequisites*:	
Competencies:	1. Identify the components of a basic radiographic unit (fixed and mobile). 2. Demonstrate an understanding of the functions of basic radiographic unit components. 3. Diagram an x-ray tube. 4. Explain the function(s) of each component of an x-ray tube. 5. Perform quality control procedures on radiographic equipment, accessories and digital imaging receptor systems. 6. Explain quality control procedures and the required standards. 7. Demonstrate an understanding of the principles of radiation physics as they relate to equipment circuitry, generators and transformers, and the role these components play in x-ray beam production. 8. Outline the components and processes involved in computed radiography (CR) image acquisition and processing systems. 9. Describe the components and processes involved in digital radiography (DR) image acquisition and processing systems. 10. Compare and contrast computed radiography (CR) and digital radiography (DR) image acquisition and processing systems.
MnTC goal areas:	None

**Can be taking as a Prerequisite or Corequisite.*

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