LSR1120 - Image Production I

Credits:	4 (3/1/0)
Description:	This course is designed to introduce the student to image acquisition techniques. A comprehensive review of technical factors and their impact on image quality will be covered, along with technique charts and their components. Students also will be introduced to x-ray production processes, the fundamental properties of x-rays and the basic components of imaging equipment.
Prerequisites:	• BIOL2260 • COMM1140 • HLTH1116
Corequisites:	• LSR1100 • LSR1140 • LSR1160
Pre/Corequisites*:	
Competencies:	1. Demonstrate an understanding of the characteristics of each technical factor used in image acquisition. 2. Discuss the role of technical factors in x-ray production and image acquisition. 3. Explain the impact each technical factor has on x-ray production and image quality. 4. Demonstrate how technical factors can be manipulated and interchanged to produce x-rays and a quality image. 5. Use mathematical equations related to image acquisition and x-ray production processes. 6. Outline the steps of x-ray production. 7. Diagram the components of a diagnostic x-ray tube. 8. Explain the characteristics of each component of an x-ray tube. 9. Describe the fundamental properties of x-rays. 10. Discuss the importance of technique charts. 11. Exhibit an understanding of each component of a technique chart. 12. Differentiate the components of various technique charts. 13. Construct a technique chart. 14. Identify the basic components of imaging equipment. 15. Operate the basic components of imaging equipment. 16. Create images in the lab using image acquisition techniques.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.

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