## 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 <sup>*</sup> :	
Competencies:	<ol> <li>Demonstrate an understanding of the characteristics of each technical factor used in image acquisition.</li> <li>Discuss the role of technical factors in x-ray production and image acquisition.</li> <li>Explain the impact each technical factor has on x-ray production and image quality.</li> <li>Demonstrate how technical factors can be manipulated and interchanged to produce x-rays and a quality image.</li> <li>Use mathematical equations related to image acquisition and x-ray production processes.</li> <li>Outline the steps of x-ray production.</li> <li>Diagram the components of a diagnostic x-ray tube.</li> <li>Explain the characteristics of each component of an x-ray tube.</li> <li>Describe the fundamental properties of x-rays.</li> <li>Discuss the importance of technique charts.</li> <li>Exhibit an understanding of each component of a technique chart.</li> <li>Differentiate the components of various technique charts.</li> <li>Construct a technique chart.</li> <li>Identify the basic components of imaging equipment.</li> <li>Operate the basic components of imaging equipment.</li> <li>Create images in the lab using image acquisition techniques.</li> </ol>
MnTC goal areas:	None

<sup>\*</sup>*Can be taking as a Prerequisite or Corequisite.*