LSR1140 - Radiation Protection

Credits:	3 (3/0/0)
Description:	This course presents an overview of the principles of radiation protection. Included are the radiation protection responsibilities of the limited scope radiographer for patients, self and other members of the interdisciplinary health care team; x-ray interactions with matter; the As Low As Reasonably Achievable (ALARA) concept; and the basic methods of radiation protection. Also incorporated are radiation health and safety requirements of federal and state regulatory agencies, accreditation agencies and health care organizations.
Prerequisites:	• BIOL2260 • COMM1140 • HLTH1116
Corequisites:	• LSR1100 • LSR1120 • LSR1160
Pre/Corequisites*:	
Competencies:	1. Explain the importance of radiation protection principles. 2. State the ALARA concept and explain its importance in diagnostic imaging. 3. Explain the methods of radiation protection used for patients, personnel and other members of the interdisciplinary health care team. 4. Outline the basic methods of radiation protection. 5. Discuss radiation detection and measurement methods used in radiation protection. 6. Describe the components of the various personal monitoring devices. 7. Explain how personal monitoring devices are interpreted. 8. Diagram and summarize x-ray interactions with matter. 9. State the requirements of radiation protection devices. 10. List and describe the functions of organizations that establish and enforce radiation protection standards. 11. List and summarize types of radiation protection devices applied to imaging equipment. 12. Use mathematical equations to calculate exposure and dose equivalent limits. 13. Discuss the production and effects of secondary radiation on personal exposure.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.

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