

Course Competency

RAT 2061 Radiation Therapy Seminar

Course Description

This course will provide the opportunity for the radiation therapy student to evaluate their cumulative knowledge through comprehensive testing, refinement of accumulated knowledge, and retention of all aspects of radiation therapy. The course challenges the student to be prepared for the American Registry of Radiologic Technologist (ARRT) comprehensive national examination upon completion of graduation.

Course Competency	Learning Outcomes
Competency 1: The student will describe all aspects of radiation protection in radiation oncology by:	1. Information Literacy
<ol style="list-style-type: none"> 1. Explaining the concept of as low as reasonably achievable (ALARA). 2. Describing accurate terminology and units when discussing radiation protection. 3. Distinguishing between somatic and genetic effects of radiation exposure. 4. Differentiating between stochastic and deterministic effects of radiation exposure. 5. Discussing the principles of radiation protection used when designing treatment rooms. 6. Describing procedures to receive and ship radioactive materials. 7. Comparing the various dose monitoring methods for medical personnel. 8. Listing exposure limits for occupational and nonoccupational individuals. 9. Explaining techniques used to reduce unnecessary dose to the patient. 	
Competency 2: The student will demonstrate knowledge of radiation therapy quality assurance in radiation oncology by:	<ol style="list-style-type: none"> 1. Critical thinking 2. Information Literacy
<ol style="list-style-type: none"> 1. Describing the role of quality management 	

<p>programs in developing a culture of safety in</p> <ol style="list-style-type: none"> 2. Explaining federal, state, and institutional accreditation standards and reporting regulations for quality management. Describe positron emitting tomography use with detection and diagnosis of cancer. 3. Discussing quality control procedures, malfunctions, and recommended tolerances for simulation equipment, megavoltage treatment units, treatment planning systems and brachytherapy equipment and sources. 4. Distinguishing local, national, and international Incident Learning Systems for error reporting and near misses. 	
<p>Competency 3: The student will demonstrate knowledge of radiation oncology patient care and education by:</p>	<ol style="list-style-type: none"> 1. Critical thinking 2. Information Literacy
<ol style="list-style-type: none"> 1. Differentiating between the roles and responsibilities of health care team members treating cancer patients. 2. Recognizing radiation side effects, complications and associated medical interventions. 3. Assessing the condition of patients before, during and after treatment delivery. 4. Evaluating a patient for an adverse reaction to medication. 5. Educating patients about medical procedures. 6. Examining the role of culture in patient-centered care. 7. Assisting patients with personal care (e.g., urinal, bedpan, wound/stoma care). 8. Identifying factors that influence a patient's emotional response. 9. Employing the principles of patient safety and transfer. 	

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