HEALTH SCIENCES AND ATHLETICS
Institutional (ILO), Program (PLO), and Course (SLO) Alignment

Program: **Radiologic Technology**	**Number of Courses:** 19	**Date Updated:** 09.08.2014	**Submitted by:** R. Serr, ext. 3811

ILOs	**1. Critical Thinking** *Students apply critical, creative and analytical skills to identify and solve problems, analyze information, synthesize and evaluate ideas, and transform existing ideas into new forms.*	**2. Communication** *Students effectively communicate with and respond to varied audiences in written, spoken or signed, and artistic forms.*	**3. Community and Personal Development** *Students are productive and engaged members of society, demonstrating personal responsibility, and community and social awareness through their engagement in campus programs and services.*	**4. Information Literacy** *Students determine an information need and use various media and formats to develop a research strategy and locate, evaluate, document, and use information to accomplish a specific purpose. Students demonstrate an understanding of the legal, social, and ethical aspects related to information use.*

SLO-PLO-ILO ALIGNMENT NOTES:

Mark boxes with an 'X' if: SLO/PLO is a major focus or an important part of the course/program; direct instruction or some direct instruction is provided; students are evaluated multiple times (and possibly in various ways) throughout the course or are evaluated on the concepts once or twice within the course.

DO NOT mark with an 'X' if: SLO/PLO is a minor focus of the course/program and some instruction is given in the area but students are not formally evaluated on the concepts; or if the SLO/PLO is minimally or not at all part of the course/program.

PLOs	**PLO to ILO Alignment** *(Mark with an X)*			
	1	**2**	**3**	**4**
PLO #1 Entry-Level Practitioners Radiologic Technology Program graduates will be clinically competent to perform as entry-level practitioners and produce diagnostic quality radiographic images.	X	X		
PLO #2 Applying Safety Principles Radiologic Technology Program graduates will be able to perform medical imaging procedures in an ethical and caring manner and apply radiation safety principles on patients, self and others.	X	X		
PLO #3 Communication and Problem Solving Radiologic Technology Program graduates will be able to demonstrate effective communication, critical thinking and problem solving skills.	X	X		
PLO #4 JRCERT The Radiologic Technology Program will evaluate and assess the following on an annual basis as required by JRCERT accreditation: a. Graduates will pass certification and/or licensing examination b. Graduates will maintain a high level of program completion/retention rates. c. Graduates will report a overall satisfaction with the program d. Employer will report overall satisfaction with the graduates' competency and job performance. e. Graduates will obtain employment in radiologic technology. f. Students will maintain a high level of success and completion for each course	X	X	X	

SLOs	SLO to PLO Alignment *(Mark with an X)*				COURSE to ILO Alignment *(Mark with an X)*			
	P1	P2	P3	P4	1	2	3	4
MEDT 1 Medical Terminology: SLO #1 Formulate Students will formulate medical terms by properly arranging prefixes, suffixes, word roots and combining forms.			X					
MEDT 1 Medical Terminology: SLO #2 Identify Terms Students will identify medical terms as relates to the body systems, including Greek and Latin terms.			X				X	
MEDT 1 Medical Terminology: SLO #3 Abbreviations Students will list appropriate medical abbreviations and their usage.			X					
RTEC 104 Clinical Education 1: SLO #1 Body Mechanic Students will demonstrate correct principles of body mechanics in the clinical setting.	X							
RTEC 104 Clinical Education 1: SLO #2 Equipment Students will demonstrate the proper use of radiographic equipment in the clinical setting.	X				X	X		
RTEC 104 Clinical Education 1: SLO #3 Ethical Behavior Students will demonstrate ethical behavior with patients, self and others.		X						
RTEC 106 Clinical Experience 1: SLO #1 IR Sizes Students will identify various types and sizes of image receptors and detectors.	X							
RTEC 106 Clinical Experience 1: SLO #2 Radiation Safety Basics Student will demonstrate knowledge of radiation protection and application of these principles to patients, self and staff.		X			X	X	X	
RTEC 106 Clinical Experience 1: SLO #3 Transporting Patients Students demonstrate the proper transporting technique via wheelchair and gurney.		X	X					
RTEC 107 Clinical Experience 2: SLO #1 Universal Precautions Students will demonstrate the proper use of protective devices for patient safety during the radiographic procedures.	X	X						
RTEC 107 Clinical Experience 2: SLO #2 Upper Extremity Techniques Students will identify appropriate exposure factors on a control panel for upper extremities.	X				X	X	X	
RTEC 107 Clinical Experience 2: SLO #3 Infection Control Methods Students will apply basic infection control methods.			X					
RTEC 109 Clinical Experience 3: SLO #1 Contrast Routes Students will identify the routes of administering contrast media for fluoroscopic examinations.		X						
RTEC 109 Clinical Experience 3: SLO #2 Patient Care Students will apply patient care principles while positioning patients for radiographic examinations.	X	X			X	X		
RTEC 109 Clinical Experience 3: SLO #3 Radiation Safety Beginning Students will apply radiation safety principles on patients, self, and other members of the health care team.		X						

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	P1	P2	P3	P4	1	2	3	4
RTEC 111 Fundamentals Radiologic Technology: SLO #1 Exposure Factors Students will evaluate how exposure factors selected by the technologist can affect radiographic quality, density and contrast on a radiographic image.	X	X			X	X		
RTEC 111 Fundamentals Radiologic Technology: SLO #2 Control of Scatter Students will assess various methods to control scatter radiation.	X							
RTEC 111 Fundamentals Radiologic Technology: SLO #3 Equipment Manipulations Students will analyze radiographic images for diagnostic quality contrast, density and recorded detail. The student will be able to make appropriate adjustments of the x-ray equipment to correct any errors with the image	X							
RTEC 123 Radiographic Positioning 1A: SLO #1 Radiation Safety & Shielding Students will apply radiation safety by using appropriate shielding with a lead apron during an on campus simulated lab evaluation.		X			X	X		
RTEC 123 Radiographic Positioning 1A: SLO #2 Radiographic Positioning Students demonstrate correct positioning of patients for quality radiographic exams of the Chest, Upper and Lower Extremities.	X	X						
RTEC 123 Radiographic Positioning 1A: SLO #3 Patient Communication Students will demonstrate effective communication skills with patients, self and others.		X						
RTEC 124 Radiographic Positioning 1B: SLO #1 ALARA & Shielding Students will apply ALARA principles of radiation safety by assessing patient risk to radiation exposure during a radiographic exam, and appropriately shield the patient during the simulated positioning lab evaluation.		X			X	X		
RTEC 124 Radiographic Positioning 1B: SLO #2 Radiographic Positioning Students will demonstrate correct positioning of patients for quality radiographic exams of the Abdomen, Thorax, Pelvis, Spine and Radiographic Contrast studies to include: BE,UGI, IVP, Cystography and ERCP.	X	X						
RTEC 124 Radiographic Positioning 1B: SLO #3 Modification for Patient Condition Students will assess patient's condition and pathology, and then make appropriate modifications to the procedures based on their condition.		X						
RTEC 216 Clinical Education 2: SLO #1 Trauma and ER Students will revise methods of performing a radiographic examination for trauma and emergency room patients.	X				X	X		
RTEC 216 Clinical Education 2: SLO #2 Radiographic Analysis Students will evaluate radiographic images and make appropriate changes when necessary.	X							
RTEC 216 Clinical Education 2: SLO #3 Radiation Protection Students will apply ALARA (as low as reasonably achievable) radiation safety principles on patients, self and other members of the health care team.		X						

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	P1	P2	P3	P4	1	2	3	4
RTEC 217 Clinical Experience 4: SLO #1 Low Exposure Students will employ the lowest radiation exposure possible to produce quality diagnostic images.	X							
RTEC 217 Clinical Experience 4: SLO #2 Infection Control Students will demonstrate proper protocols for infection control.		X			X	X		
RTEC 217 Clinical Experience 4: SLO #3 Cardinal Rules Students will apply the cardinal rules of radiation safety principles on patients, self and others.		X						
RTEC 218 Clinical Experience 5: SLO #1 Adaptation in Clinical Students will adapt to changes in varying clinical situations.	X							
RTEC 218 Clinical Experience 5: SLO #2 Contrast Precautions Students will compare and contrast the precautions, use and handling associated with contrast agents.		X			X	X		
RTEC 218 Clinical Experience 5: SLO #3 ALARA Students will apply ALARA radiation safety principles on patients, self and others *ALARA = As Low As Reasonably Achievable.		X						
RTEC 220 Clinical Experience 6: SLO #1 Effective Communication Students will demonstrate effective communication in written, oral and non-verbal communication with patients, family and hospital		X						
RTEC 220 Clinical Experience 6: SLO #2 Radiation Safety Advanced Students will apply ALARA (as low as reasonably achievable) radiation safety principles on patients, self and other members of health care team.		X			X	X		
RTEC 220 Clinical Experience 6: SLO #3 Adapt to PT Condition Students will assess patient's condition and make appropriate modifications to the examination based on their condition.	X							
RTEC 233 Radiologic Positioning 2: SLO #1 Radiographic Skull Positioning Students will demonstrate positioning a patient in the various positions needed to produce diagnostic quality radiographs in skull imaging.	X							
RTEC 233 Radiologic Positioning 2: SLO #2 Radiographic Skull Image Evaluation Students will analyze radiographic images of the skull, recognize and identify any errors and accurately correct for the positioning errors.	X	X			X	X		
RTEC 233 Radiologic Positioning 2: SLO #3 Radiographic Skull Anatomy and Positioning Students will analyze cranial anatomy and how it relates to proper positioning of the skull during radiographic exams.		X						

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RTEC 244 Radiation Physics, Equipment, and Safety: SLO #1 Comparing Techniques for Imaging Systems The student will formulate radiographic techniques and compare exposure differences for 3 radiographic examination (Ex: chest, lumbar spine and knee), using digital and film screen imaging systems.	X							
RTEC 244 Radiation Physics, Equipment, and Safety: SLO #2 Patient Dose and Techniques The student will calculate the radiation exposure levels to the patient for 3 types of imaging systems (film screen, DR and CR) and compare and contrast the relationship of the imaging systems to patient dose.	X				X	X		
RTEC 244 Radiation Physics, Equipment, and Safety: SLO #3 Biologic Effect of Radiation Exposure Students will describe the acceptable radiation dose limits for patients and radiation workers, and then analyze the biologic effects to humans that receive an overexposure.		X						
RTEC 255 Advanced Imaging and Special Procedures: SLO #1 Radiographic Special Procedures Students will analyze Radiographic Special Procedures and new trends in imaging modalities. Students will be able to research, write and give an oral presentation on a topic relating to "Special Imaging Modality" and new trends in imaging.	X	X						
RTEC 255 Advanced Imaging and Special Procedures: SLO #2 Communication Skills Students will demonstrate effective communication skills related to the imaging modalities and equipment used for Radiographic Special Procedures.		X			X	X		
RTEC 255 Advanced Imaging and Special Procedures: SLO #3 Radiographic Quality Assurance Students will describe the purpose of Radiographic Quality Assurance and Quality Control and relate how it affects patient care.		X						
RTEC 328 Clinical Experience 7: SLO #1 Professionalism The Student will demonstrate professionalism with patients, self and others		X	X					
RTEC 328 Clinical Experience 7: SLO #2 Problem Solving for Image Critique Students will evaluate radiographic images and make appropriate changes when necessary to produce quality diagnostic images.	X				X	X	X	
RTEC 328 Clinical Experience 7: SLO #3 Radiographic Techniques Students will employ radiographic techniques that produce quality diagnostic images using the lowest patient dose while maintaining good ALARA (as low as reasonably achievable) radiation safety principles on patients.	X	X						
RTEC 91 Radiographic Pathology: SLO #1 Pathogenesis and Etiology Students will recall the pathogenesis and etiology of diseases commonly diagnosed with medical imaging.		X						
RTEC 91 Radiographic Pathology: SLO #2 Pathology Terminology Students will define common terminology associated with the study of disease.		X			X			
RTEC 91 Radiographic Pathology: SLO #3 Pathology Identification Students will identify pathologies that are common to the various body systems.		X						

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RTEC 93 Venipuncture and Pharmacolgy for the Radiologic Technologist: SLO #1 Contrast Media Reaction The student will analyze the current medical history of the patient and assess the safety of the patient to receive a contrast media injection and their risk level for an adverse reaction.		X			X	X		
RTEC 93 Venipuncture and Pharmacolgy for the Radiologic Technologist: SLO #2 Contrast Dose Calculations Students will formulate contrast dose calculations for adult and pediatric patients	X							
RTEC 93 Venipuncture and Pharmacolgy for the Radiologic Technologist: SLO #3 Proper Vein Locations Students will locate the common veins and sites of injection for a venipuncture injection of contrast media by demonstrating a "flash back" with a butterfly and angio catheter needle		X						
RTEC A Introduction to Radiologic Technology: SLO #1 Radiographic Protection Students will analyze different methods to reduce radiation dose to the patient in the radiology department.		X			X	X		
RTEC A Introduction to Radiologic Technology: SLO #2 Radiographic Quality Students will explain the concepts of contrast and density of a radiograph.		X						
RTEC A Introduction to Radiologic Technology: SLO #3 Radiation in Matter Students will differentiate between the 5 photon interactions in matter by describing the origin of the interaction and its effect on the body.	X							