



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	RTEC
Course Number:	217
Descriptive Title:	Clinical Experience 4
Division:	Health Sciences and Athletics
Department:	Radiologic Technology
Course Disciplines:	Radiologic Technology
Catalog Description:	This course continues the development of clinical skills in the art of radiography with special emphasis on age-specific competencies, and mobile and surgical imaging. In addition, students continue to complete mandatory and elective clinical performance evaluations, as outlined in the course syllabus and student handbook.
Prerequisite:	Radiologic Technology 104 AND Radiologic Technology 109 with a minimum grade of C in all prerequisites
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	0
Hours Laboratory (per week):	21
Outside Study Hours:	0
Total Course Hours:	378
Course Units:	7
Grading Method:	Letter Grade only
Credit Status:	-
Transfer CSU:	Yes
Effective Date:	
Transfer UC:	
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	

<p>Student Learning Outcomes:</p>	<p>SLO #1 Quality Factors</p> <p>Students will use proper (high kVP, low mAs) technique factors to produce high quality diagnostic images.</p> <p>SLO #2 Infection Control</p> <p>Students will demonstrate proper protocols for infection control.</p> <p>SLO #3 Cardinal Rules</p> <p>Students will apply the cardinal rules of radiation safety principles on patients, self and others.</p>
<p>Course Objectives:</p>	<ol style="list-style-type: none"> 1. Set up the exam room and demonstrate the appropriate clinical skills required to successfully complete the minimum number of performance evaluations (competencies), as outlined in the student handbook and course syllabus. 2. Utilize protocols of infection control. 3. Differentiate between emergency and non-emergency procedures and assist as necessary. 4. Demonstrate competency in the principles of radiation protections standards. 5. Adapt procedures to meet age-specific, disease-specific, and cultural needs of the patient. 6. Assist and perform radiographic examinations of all areas, excluding special procedures, under the appropriate level of supervision in all aspects. 7. Examine procedure orders for accuracy and follow-up to make corrective changes when applicable. 8. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible. 9. Critique images for appropriate clinical information, patient positioning and recorded detail. Apply appropriate corrective action when applicable to produce a diagnostic quality image.
<p>Major Topics:</p>	<p>I. Code of Ethics and Professional Behavior (40 hours, lab)</p> <p>A. Consistency, accuracy, responsibility and excellence (CARE) in medical imaging</p> <p>B. Standards for supervision</p> <ol style="list-style-type: none"> 1. Direct 2. Indirect <p>C. Patient care</p> <ol style="list-style-type: none"> 1. Expectations 2. Rights 3. Responsibilities 4. Safety 5. Incident reporting <p>II. Professional and Effective Communication (40 hours, lab)</p> <p>A. Patients</p> <p>B. Patient's family</p> <p>C. Radiology and health care team</p> <p>D. Confidentiality of patient records</p> <ol style="list-style-type: none"> 1. Health Insurance Portability and Accountability Act <p>III. Radiography of Torso (55 hours, lab)</p> <p>A. Chest Radiography</p> <ol style="list-style-type: none"> 1. Portable Chest exam

	<ul style="list-style-type: none"> 2. AP chest B. Abdomen <ul style="list-style-type: none"> 1. Upright 2. Decubitus C. Bony thorax <ul style="list-style-type: none"> 1. Cervical spine 2. Thoracic spine 3. Lumbar spine <p>IV. Fluoroscopic Imaging (55 hours, lab)</p> <ul style="list-style-type: none"> A. Gastrointestinal studies B. Genitourinary studies <p>V. Trauma Examinations (60 hours, lab)</p> <ul style="list-style-type: none"> A. Orthopedic trauma exams B. Trauma chest radiography C. Portable trauma exams D. Surgical C-arm exams <p>VI. Age-Related Radiography (53 hours, lab)</p> <ul style="list-style-type: none"> A. Geriatric Radiography B. Pediatric Radiography C. Special Needs Patients <p>VII. Extremity Exams (60 hours, lab)</p> <ul style="list-style-type: none"> A. Upper extremities B. Lower extremities <p>VIII. Image Critique (15 hours, lab)</p> <ul style="list-style-type: none"> A. Presentation of images B. Explanation of image quality
Total Lecture Hours:	0
Total Laboratory Hours:	378
Total Hours:	378
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Demonstrate proper positioning, technical and safety procedures for the radiographic positions necessary in the performance of trauma radiography.
Critical Thinking Assignment 1:	During an image critique session, present, in an oral and written format, a review of a radiographic examination that you performed at the clinical site within the past month. Discuss the difficulties presented with performing and completing the procedure. The presentation must include an analysis and critique of all radiographs presented. The critique shall include the technical factors used, positioning, pathology involved, terminology explanation and radiation protection principles employed.
Critical Thinking Assignment 2:	Demonstrate competency in the performance of various radiographic procedures utilizing principles of radiation safety for the patient, self and others.
Other Evaluation Methods:	Fieldwork, Performance Exams
Instructional Methods:	Demonstration, Group Activities, Lab
If other:	Clinical assignment at hospital affiliates under the direct and in-direct supervision of a Radiologic Technologist during the performance of radiographic procedures on patients. Image evaluation and critique presentations performed.
Work Outside of Class:	Course is lab only - minimum required hours satisfied by scheduled lab time

If Other:	
Up-To-Date Representative Texts:	Rollins, J., <u>Merrill's Atlas Of Radiographic Positions and Radiographic Procedures, Vol. I and II & III.</u> 15 th ed. by Mosby/Elsevier 2023
Alternative Texts:	
Required Supplementary Readings:	El Camino College Radiologic Technology Program Student Handbook
Other Required Materials:	
Requisite:	Prerequisite
Category:	sequential
Requisite course(s): List both prerequisites and corequisites in this box.	Prerequisite: Radiologic Technology-104 AND Radiologic Technology-109
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Knowledge of human anatomy and radiographic positions required to perform diagnostic radiographic procedures and produce quality radiographic images, while reducing patient radiation exposure. RTEC 109 - Formulate methods to successfully perform radiographic examinations for patients who due to their physical condition, mental state, or age, are unable to cooperate for the procedure, while being attentive to their physical comfort, safety and needs. RTEC 104 - Demonstrate technical competence and prudent judgment while administering ionizing radiation to perform diagnostic imaging procedures of the chest, upper and lower extremities, to meet acceptable patient care standards.</p> <p>Knowledge of radiation safety principles to provide proper radiation protection and safety to patients, self and others. RTEC 104 - Demonstrate proper positioning and radiation protection while performing radiographic examination of the chest, upper and lower extremities, while being attentive to the needs, safety and comfort of the patient. RTEC 109 - Demonstrate proper radiation protection for the patient, doctor, and technologist during fluoroscopy examinations.</p> <p>Knowledge and ability to maneuver and operate radiographic equipment and accessories safely. RTEC 104 - Demonstrate the safe and the proper use of radiographic equipment and protective shielding devices at the clinical site.</p>
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
Requisite course:	
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	

Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s). If applicable	
Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	D. Visintainer
Date:	11/01/1979
Original Board Approval Date:	
Last Reviewed and/or Revised by:	Colleen McFaul
Date:	02/14/2024
Last Board Approval Date:	05/20/2024
Effective Term:	FA 2025