



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	RTEC
Course Number:	218
Descriptive Title:	Clinical Experience 5
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 an emphasis on observation of special imaging modalities and exams requiring the use of contrast media. Students will work towards completion of all mandatory and elective clinical performance evaluations including the categorical final competencies as outlined in the course syllabus and student handbook.
Prerequisite:	Radiologic Technology 217 AND Radiologic Technology 233 with a minimum grade of C
Co-requisite:	Radiologic Technology 255
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:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	3/15/1999
Transfer UC:	
Effective Date:	
General Education:	ECC
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	

<p>Student Learning Outcomes:</p>	<p>SLO #1 Adaptation in Clinical Students will adapt to changes in varying clinical situations.</p> <p>SLO #2 Contrast Precautions Students will compare and contrast the precautions, use and handling associated with contrast agents.</p> <p>SLO #3 ALARA Students will apply ALARA radiation safety principles on patients, self and others *ALARA = As Low As Reasonably Achievable.</p>
<p>Course Objectives:</p>	<ol style="list-style-type: none"> 1. Compare and contrast the precautions, use and handling associated with contrast agents. 2. Adapt to changes and varying clinical situations. 3. Assist and perform radiographic examinations of all areas, including special procedures, under the appropriate level of supervision in all aspects. 4. Utilize protocols of infection control. 5. Examine procedure orders for accuracy and follow-up to make corrective changes when applicable. 6. Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible. 7. Critique images for appropriate clinical information, patient positioning and recorded detail. Apply appropriate corrective action when applicable to produce a diagnostic quality image. 8. 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. 9. Evaluate the patient's status and condition before, during and following the radiologic procedure. 10. Integrate the use of appropriate, effective written, oral and nonverbal communication with patients, family members, the public and other members of the health care team.
<p>Major Topics:</p>	<p>I. Code of Ethics and Professional Behavior (35 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 (35 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 (50 hours, lab)</p> <p>A. Chest Radiography</p> <ol style="list-style-type: none"> 1. Portable Chest exam 2.. AP chest <p>B. Abdomen</p> <ol style="list-style-type: none"> 1. Upright

	<ul style="list-style-type: none"> 2. Decubitus C. Bony thorax <ul style="list-style-type: none"> 1. Pelvis 2. Ribs 3. Clavicle <p>IV. Fluoroscopic Imaging (50 hours, lab)</p> <ul style="list-style-type: none"> A. Endoscopic retrograde cholangiopancreatography B. Percutaneous transhepatic cholangiography C. Cystogram D. Myelography E. Arthrography <p>V. Skull Radiography (45 hours, lab)</p> <ul style="list-style-type: none"> A. Facial Bones B. Paranasal Sinuses C. Mandible D. Orbits E. Temporomandibular articulations F. Nasal Bones G. Zygomatic Arches <p>VI. Trauma Examinations (51 hours, lab)</p> <ul style="list-style-type: none"> A. Orthopedic trauma exams B. Trauma chest radiography C. Portable trauma exams <p>VII. Age-Related Radiography (45 hours, lab)</p> <ul style="list-style-type: none"> A. Geriatric Radiography <ul style="list-style-type: none"> 1. Older than 65 with impairment B. Pediatric Radiography <ul style="list-style-type: none"> 1. Under age 6 2. Over age 6 C. Special Needs Patients <p>VIII. Extremity Exams (55 hours, lab)</p> <ul style="list-style-type: none"> A. Upper extremities B. Lower extremities <p>IX. Image Critique (12 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:	Demonstration of proper positioning, technical and radiation safety for various contrast procedures.
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 this 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 proper positioning skills, technical and safety procedures in use of a mobile c-arm during the performance of a surgical procedure.
Other Evaluation Methods:	Clinical Evaluation, Completion, Essay Exams, Fieldwork, Homework Problems, Laboratory Reports, Matching Items, Multiple Choice, Objective Exam, Oral Exams, Other Exams, Presentation, Quizzes, Reading Reports, Term or Other Papers, Written Homework
Instructional Methods:	Demonstration, Group Activities, Lab, Role play/simulation
If other:	Internet Presentation/Resources 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:	<i>Merrill's Radiographic Positioning & Procedures</i> (VOL 1& 2) Long et all, 15 th Ed. Elsevier 2022
Alternative Texts:	
Required Supplementary Readings:	
Other Required Materials:	Porgram Student Handbook
Requisite:	Prerequisite
Category:	sequential
Requisite course(s): List both prerequisites and corequisites in this box.	Prerequisite: Radiologic Technology-217 AND Radiologic Technology-233 Corequisite: Radiologic Technology-255
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Knowledge of infection control to meet the technologist and patient care standards and safety. RTEC 217 - Utilize protocols of infection control. RTEC 255 - List and describe the means of protecting the patient and staff during special radiographic procedures. RTEC 233 - Demonstrate the use of accessories, protective devices, and technical factors to meet acceptable patient care standards.</p> <p>Knowledge of reducing radiation exposure for the safety of the patient and technologist. RTEC 255 - List and describe the means of protecting the patient and staff during special radiographic procedures. RTEC 233 - Demonstrate the use of accessories, protective devices, and technical factors to meet acceptable patient care standards. RTEC 217 - Select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.</p> <p>Knowledge of the radiographic equipment and positioning skills utilized in the performance of radiographic procedures. RTEC 217 - Assist and perform radiographic examinations of all areas, excluding special procedures, under the appropriate level of supervision in all aspects. RTEC 255 - Identify and describe the types of equipment used for specialized radiographic, interventional and other imaging procedures.</p>

	<p>RTEC 233 - Describe the standard radiographic positions required in the performance of radiographic exams of the cranium.</p> <p>RTEC 233 - Demonstrate positioning skills for each unit of instruction.</p> <p>RTEC 255 - Accurately identify radiographic anatomy, cross sectional anatomy, patient positioning exam protocols, and related pathology associated with special radiographic procedures.</p> <p>RTEC 233 - Using the energized laboratory and phantoms, perform radiographic procedures appropriate for the cranium.</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).	
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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:	Eric Villa
Date:	02/14/2024
Last Board Approval Date:	05/20/2024
Effective Term:	FALL 2025