

R T 63B: RADIOGRAPHIC CLINICAL PRACTICUM II

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2025
Units:	10.5
Hours:	32 laboratory per week (384 total per quarter) This is a clinical laboratory course.
Prerequisite:	R T 63A.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

Student Learning Outcomes

- Demonstrate proper equipment manipulation and positioning criteria for selected radiographic procedures, applying appropriate patient care and radiation protection principles in the clinical setting.
- Perform image evaluation, to include anatomy and pathology identification for various radiographic procedures.

Description

Second of three courses that includes clinical participation and application of basic positioning, patient care, equipment manipulation, radiation protection, and image analysis. Emphasis on advanced radiographic examinations of the skull, mandible, orbits, nasal bones, facial bones, para-nasal sinuses, and mastoids, and on interventional procedures. Intended for students in the Radiologic Technology Program; enrollment is limited to students accepted in the program.

Course Objectives

The student will be able to:

1. Demonstrate accuracy in radiation protection for the patient, clinical staff, and self.
2. Exhibit knowledge, understanding, and dexterity in the proper use of radiographic equipment.
3. Demonstrate compliance with the Foothill College Radiologic Technology Program's standards of attendance, punctuality, and dependability.
4. Conduct themselves in a professional manner with co-workers, the public, and other clinical facility staff.
5. Apply theory to practice by exhibiting ongoing, satisfactory job performance skills.
6. Select proper technical factors for radiographic procedures on patients across the lifespan.
7. Demonstrate proper positioning skills as outlined by department protocol.
8. Apply the principles of compassionate, person-centered care in a variety of clinical settings, utilizing appropriate communication and assessment strategies.

9. Demonstrate competence performing radiographic procedures as outlined in the Clinical Education Manual.
10. Demonstrate competency in advanced radiographic examinations of the skull, mandible, orbits, nasal bones, facial bones, TMJs, and paranasal sinuses.
11. Analyze and apply basic methods and principles involved in vascular radiography and interventional procedures requiring contrast media.

Course Content

1. Radiation protection
 - a. Closing doors during procedures and exposures
 - b. Shielding patients when appropriate
 - c. Collimating to image receptor size and/or part size
 - d. Protecting self and others from irradiation by wearing aprons, gloves, and dosimeter
 - e. Keeping repeat images to a minimum
 - f. Verifying patient pregnancy status
2. Equipment
 - a. Competency and proficiency with equipment
 - b. Safety precautions
 - c. Effective manipulation of control panel
3. Punctuality and dependability
 - a. Punctuality in reporting to the assigned area of the Radiology Department at the start of a shift; being in assigned imaging room and ready for patient at least five minutes before start of shift
 - b. Minimum loss of time due to absenteeism
 - c. Taking proper length of time for breaks according to the assigned Radiology Department policy
 - d. Properly notifying the assigned Radiology Department in case of absence or tardiness
 - e. Communicating whereabouts appropriately
4. Co-worker, clinical facility relationships
 - a. Being tactful and courteous with staff and others
 - b. Demonstrate initiative and helping other staff members
 - c. Working as a team with the Radiologic Technologist
 - d. Accepting constructive criticism
 - e. Conducting oneself in a professional manner
 - f. Adhering to dress code
 - g. Communicating effectively with staff members and following instructions
 - h. Contributing to a pleasant work environment
5. Job performance
 - a. Marking all radiographs according to the assigned Radiology Department protocol
 - b. Planning and organizing work efficiently
 - c. Being alert and interested in what is happening in the imaging room and asking pertinent questions
 - d. Reading and understanding the requisition and properly identifying the patient
 - e. Maintaining a neat, clean, and well-stocked imaging room
 - f. Communicating effectively
 - g. Following verbal instructions with multiple steps
 - h. Making effective use of free time

- i. Completing the radiographic examination in a reasonable amount of time
 - j. Demonstrating ethical behavior in all aspects of patient care
 - k. Adhering to the Radiologic Technology Program Supervision Policy
 - l. Recording the supervising Radiologic Technologist signature on log sheets for all repeat images
 - m. Performing repeat images under direct supervision of a Radiologic Technologist
6. Technical factors
 - a. Set the control panel accurately for an exposure
 - b. Understand how various mA, kV, time, and distance factors affect the radiographic image
 - c. Differentiate between AEC and manual technique
 - d. Confirm the control panel settings before exposure
 7. Positioning
 - a. Demonstrate the knowledge of the assigned Radiology Department protocols for radiographic examinations stated in the objectives
 - b. Demonstrate knowledge of the specific centering for each part radiographed, including angulation of the x-ray tube and body part
 - c. Demonstrate care in accurately positioning the patient, using proper immobilization
 - d. Identify basic anatomy and critique images utilizing specified criteria
 - e. Handle all patients with respect while positioning
 - f. Confirm patient understanding of instructions and monitor the patient during the imaging exposure
 8. Patient care and nursing procedures
 - a. Effectively communicate with the patient and family members/ caretakers, taking into consideration any special needs
 - b. Assessing the patient to determine appropriate steps to complete the radiographic examination
 - c. Using a safe approach when transferring patients
 - d. Knowing the location of emergency equipment and supplies
 - e. Proper handling of a patient with IVs and catheters
 - f. Applying surgical and medical asepsis when drawing up syringes and working around a sterile field
 - g. Completing the radiographic examination in a reasonable amount of time
 9. Radiographic procedures competency
 - a. Defined by Clinical Education Manual
 10. Advanced radiographic procedures
 - a. Positioning and procedures, with emphasis on radiography of skull, facial bones, mandible, TMJs, and sinuses
 11. Interventional radiology
 - a. Visceral and peripheral angiography (venography, arteriography)

- e. Radiographic procedures
- f. Patient care in a clinical setting

Special Facilities and/or Equipment

1. Rotation to a clinical affiliate with energized x-ray unit.
2. Laptop for viewing digital teaching file in the clinical setting.
3. Trajecsys access for all students to log exams.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Clinical performance evaluation

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Discussion
Cooperative learning exercises
Oral presentations
Demonstration

Representative Text(s) and Other Materials

Bontrager, Kenneth. Textbook of Radiographic Positioning and Related Anatomy. 2021.

Foothill College (RT). Clinical Education Manual.
Foothill College (RT). Student Handbook.
Foothill College (RT). Clinical Competency Handbook.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Weekly image analysis quizzes:
 - a. Identify radiographic anatomy
 - b. Evaluate positioning errors
 - c. Formulate options to correct errors
 - d. Select appropriate technical factors based on body habitus, distance, tube angle

Discipline(s)

Radiological Technology

Lab Content

1. Radiologic technology clinical practice
 - a. Radiation protection
 - b. Equipment operation
 - c. Image production
 - d. Image evaluation