

**Jefferson Community College
Radiologic Technology Program
Ancillary and Procedure Clinical Competencies**

CLINICAL REQUIREMENTS

All radiography candidates (students) must demonstrate competence in the clinical activities identified below. Demonstration of clinical competence means that the program director or designee has observed the candidate performing the procedure, and that the candidate performed the procedure independently, consistently, and effectively. Candidates must demonstrate competence in the areas listed below.

- Six mandatory general patients care activities.
- Seven general radiography competencies.
- Twelve Film Processing/ Film Library competencies (as applicable).
- Six Front Desk competencies.
- Four Patient Transport Competencies.
- Four Routine Room Competencies.
- Six Portable Radiography Competencies.
- Five Ancillary Area Competencies.
- Thirty-six mandatory radiologic procedures.
- Fifteen elective radiologic procedures to be selected for a lost of 30 procedures.

Note: The ARRT requirements specify that certain clinical procedures may be simulated. Simulations must meet the following criteria: (a) the student is required to competently demonstrate skills as similar as circumstances permit to the cognitive, psychomotor, and affective skills required in the clinical setting; (b) the program director is confident that the skills required to competently perform the simulated task will generalize or transfer to the clinical setting. Examples of acceptable simulation include: demonstrating CPR on a mannequin; positioning a fellow student for a projection without actually activating the x-ray beam, and evaluating an image from a teaching file; performing venipuncture by demonstrating aseptic technique on another person, but then inserting the needle into an artificial forearm or grapefruit.

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Patient Care and Management Competency

Procedure	Date Completed	Verified By
CPR		
Vital signs (BP, pulse, respiration's, & temperature)		
Venipuncture		
Sterile and aseptic technique		
Transfer of patient		
Care of patient medical equipment (e.g., oxygen tank, IV tubing)		

General Radiography Competency

Procedure	Date Completed	Verified By
Process a patient requisition from entry into the department to the film read-out area		
Manipulate radiographic equipment		
Demonstrate ethical and professional behavior in the clinic		
Provide for the physical needs of the patient		
Locate all major departments in the clinical setting		
Demonstrate methods of radiation protection		
Develop an ongoing technique chart for major anatomical sites (small, medium, and large patients)		

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Film Processing Competency/ Film Library (as applicable)

Procedure	Date Completed	Verified By
Processing radiographs		
Loading/ unloading cassettes		
Cleaning cassettes		
Identify how various films are used		
Maintain quality control in the film processing area		
Routine cleaning and maintenance of processor Copy or duplicate radiographs		
Identify the silver recovery unit		
Identify the replenishment tanks		
Load the film bin with a new box of film		
File film jackets properly		
Retrieve film jackets properly		
Process loaned films properly		

Front Desk

Procedure	Date Completed	Verified By
Receive inpatients and outpatients properly		
Process requisitions properly		
Schedule and charge properly		
Instruct the patient properly		
Keep accurate records		
Answer telephones properly		

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Patient Transport

Procedure	Date Completed	Verified By
Become familiar with the hospital layout		
Identify patients properly		
Chart and patient retrieval procedures		
Recognize transport cautions (IV, isolation etc.)		

Room Routine

Procedure	Date Completed	Verified By
Categorize film size		
Identify radiography equipment to include locks, buck trays, tube, markers, etc.		
Operate basic equipment to include locks, control panel, etc.		
Locate linen storage and supply room		

Portables

Procedure	Date Completed	Verified By
Hospital layout to include surgery and ER		
Safety techniques involved with equipment		
Daily maintenance of equipment		
Patient handling and safety		
Patient identification procedure		
Review written order and sign-off when procedure is completed		

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Digital Radiographic Archiving

Procedure	Date Completed	Verified By
Label the image receptor with proper I.D.		
Process the digital image		
Retrieve the digital image		
Window level the image		
DICOM the image to network		

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Candidates must demonstrate competence in all **thirty-six (36)** procedures identified as mandatory (**M**). Procedures should be performed on patients; however, up to **eight (8) mandatory procedures may be simulated** if demonstration on patients is not feasible. (*JCC does not allow simulation for procedure competency until the last semester in the program*).

Candidates must demonstrate competence in **15 of the 30 elective (E) procedures**. Elective procedures should be performed on patients; however, electives may be simulated if demonstration on patients is not feasible.

Institutional protocol will determine the positions or projections used for each procedure.

Demonstration of competence includes requisition evaluation, patient assessment, room preparation, patient management, equipment operation, technique selection, positioning skills, radiation safety, image processing, and image evaluation.

Both mandatory and elective competencies are listed. Blank areas are available for the student to add elective competencies, which are not listed.

Radiologic Procedure	Mandatory or Elective	Date Completed	Patient or Simulated	Competence Verified By
Chest and Thorax				
Chest Routine	M			
Chest AP (wheelchair or stretcher)	M			
Ribs	M			
Chest Lateral Decubitus	E			
Sternum	E			
Upper Airway (soft-tissue neck)	E			
Upper Extremity				
Thumb or Finger	M			
Hand	M			
Wrist	M			
Forearm	M			
Elbow	M			
Humerus	M			
Shoulder	M			
Clavicle	E			
Scapula	E			
AC Joints	E			

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Radiologic Procedure	Mandatory or Elective	Date Completed	Patient or Simulated	Competence Verified By
Lower Extremity				
Foot	M			
Ankle	M			
Knee	M			
Tibia-Fibula	M			
Femur	M			
Patella	E			
Calcaneus (Os Calcis)	E			
Toe	E			
Cranium				
Skull	M			
Paranasal Sinuses	M			
Facial Bones	E			
Orbits	E			
Zygomatic Arches	E			
Nasal Bones	E			
Mandible (panorex acceptable)	E			
Spine and Pelvis				
Cervical Spine	M			
Thoracic Spine	M			
Lumbosacral Spine	M			
Hip	M			
Cross Table Lateral Hip	M			
Sacrum and or Coccyx	E			
Scoliosis Series	E			
Sacroiliac Joints	E			
Abdomen				
Abdomen Supine (KUB)	M			
Abdomen Decubitus or Upright	M			
Intravenous Urography	E			
Fluoroscopy Studies				
Upper GI Series (single or double contrast)	M			
Barium Enema (single or double contrast)	M			
Small Bowel Series	E			
Esophagus	E			
Cystography/ Cystourethrography	E			

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Radiologic Procedure	Mandatory or Elective	Date Completed	Patient or Simulated	Competence Verified By
ERCP	E			
Myelography	E			
Arthrography	E			
Surgical Studies				
C-Arm Procedure	M			
Surgical Cholangiography	E			
Retrograde Pyelography	E			
Mobile (Portable) Studies				
Chest	M			
Abdomen	M			
Orthopedic	M			
Pediatrics (age 6 or younger)				
Chest Routine	M			
Upper Extremity	E			
Lower Extremity	E			
Abdomen	E			
Mobile Study	E			
Trauma Studies *				
Shoulder (scapular Y, transthoracic or axillary)	M			
Upper Extremity (nonshoulder)	M			
Lower Extremity	M			
Cervical Spine (cross table lateral)	M			
Other Competencies Not Listed Above				

* Trauma is considered a serious injury or shock to the body. Modifications may include variations in positioning, minimal movement of the body part, etc.