

**FOOTHILL COLLEGE
RADIOLOGIC TECHNOLOGY PROGRAM**

Clinical Forms for the
Orientation Student



Summer 2022

ORIENTATION GUIDELINES

Orientation Students Five-Week Summer Orientation

The first day the students are in the department the clinical instructor will be covering the following areas.

1. Tour of the hospital and/or imaging department.
2. Introduction to supervisors and staff.
3. Explanation of department workflow.
4. Procedure for illness and tardiness.
5. Dress code policy.
6. Room schedule.
7. Location of linen and medical supplies.
8. Schedule for laboratory activities.

At the end of each week, the clinical instructor will meet with the students for at least 30 minutes to discuss students' observations and answer questions.

Reminders:

- **Orientation students are to remain under direct supervision at all times.**
- **The clinical instructor should schedule the students to see a variety of exams.**
- **Surgery should not be included in orientation.**

ORIENTATION

Clinical Education Objectives

I. Radiation Protection

The student will demonstrate awareness of the importance and methods of radiation protection for the patient, personnel and self by observing and practicing the following:

- A. Closing doors during procedures and exposures.
- B. Shielding patients when appropriate.
- C. Protecting himself/herself and others from irradiation by wearing aprons, gloves and dosimeter.
- D. Verifying pregnancy status when applicable; following department protocol.
- E. Collimating to image receptor or part size.

II. Equipment

- A. The student will be able to recognize the following areas and types of equipment.
 1. General radiographic room.
 2. Fluoroscopy room when applicable.
 3. Control or processing station.
 4. Image Library.
 5. Emergency Department/Urgent Care.
- B. The student will be able to safely and carefully.
 1. Move an overhead x-ray tube.
 2. Move the x-ray tabletop.
 3. Put image receptor in and out of the bucky tray.
 4. Properly align tube and IR/Bucky.
 5. Be able to differentiate between image receptor sizes/field of view.
 6. Process images.

III. Punctuality and Dependability

Areas of importance are:

- A. Punctuality in reporting to department 5 minutes before the start of a shift.
- B. Minimum loss of time due to absenteeism.
- C. Consideration of others by taking proper length of time for breaks according to department policy.
- D. Properly notifying the department in case of absence or tardiness.
- E. Communicating whereabouts appropriately.

IV. Co-Worker, Hospital Relationships

During the hospital assignment, the student will demonstrate positive relationships in dealing with co-workers, the public and other hospital staff. Areas of special importance include:

- A. Adheres to code of ethics.
- B. Tact and courtesy with staff and others.
- C. Demonstrates interest and a positive attitude.
- D. Acceptance of constructive criticism and conducts self in professional manner.
- E. Adheres to dress code.
- F. Communicates effectively and follows instructions.
- G. Contributes to a pleasant working environment.
- H. Takes the initiative to assist and perform exams.

V. Job Performance

- A. Is alert and interested in what is happening in room – asks pertinent questions.
- B. Reads and understands the requisition and properly identifies the patient.
- C. Maintains a neat, clean and well-stocked room.
- D. Communicates effectively.
- E. Is able to follow verbal instructions with multiple steps.
- F. Demonstrates initiative and makes effective use of free time.
- G. Student will demonstrate proper ethical behavior.
- H. Marks all radiographs correctly.
- I. Is willing to start exam on own.
- J. Is well organized.
- K. Minimum of two observation forms from technologists.

VI. Technical Factors

Student:

- Can properly use the rotor and exposure switch
- Can set kV and mAs for Chest and Abdomen exams.
- Determines appropriateness of exposure based on exposure index (S-number, LgM, EI, etc.)
- Sets panel at proper time during the exam

VII. Positioning

- A. The student will observe a variety of radiographic procedures.
- B. The student will participate in a demonstration of a 2-view-chest exam.
- C. The student will successfully perform a 2-view chest exam on a patient.
- D. The student will know positioning criteria for 2-view chest and abdomen.
- E. The student is gentle toward the patient when positioning.
- F. The student positions the patient carefully and avoids manipulation of the injured area.

- G. The student be able to identify radiographic anatomy of the PA and Lateral chest and abdomen listed in the Anatomy Comp List.
- H. The student uses concise instructions to the patient.

VIII. Patient Care and Nursing Procedures

- A. Identifying patient properly and using his/her last name during procedure.
- B. Communicating effectively with the patient.
- C. Explains exams to patients.
- D. Demonstrating empathy towards the patient.
- E. Safely assisting a cooperative patient in moving on and off the x-ray table and up to/away from the chest board.
- F. The student will practice proper medical asepsis.

IX. Image Evaluation

- A. Identifies optimum image exposure (no noise or saturation)
- B. Identifies proper anatomy and centering
- C. Identifies image and patient positioning
- D. Describes image receptor and part centering
- E. Identifies proper patient positioning
- F. Identifies appropriate collimation

The clinical instructor using the grading scale below will compute the final clinical education score.

95-100	= A
87-94	= B
80-86	= C
Below 80	= D

Failure to achieve "C" performance in any one of the objective categories will be sufficient cause to put the student through a probationary period.

After placement on probation the student must rate and maintain a "C" in all areas of clinical performance in order to continue and complete the Foothill College Radiologic Technology Program.

RT53 ORIENTATION

HOSPITAL OBJECTIVES

1. The student will be introduced to a radiology department and the department staff. The student will be able to recognize the different areas of the x-ray department (i.e. radiographic room, reception desk, dressing room, processing area, image library).
2. The student will participate in a hospital tour.
3. The student will observe a variety of radiographic procedures within the department.
4. The student will participate in a demonstration given by the clinical instructor on a basic 2 view-chest examination.
5. The student will perform a 2 view-chest procedure on a patient.
6. The student will be introduced to image processing measures and be able to differentiate between image receptor size and / or field of view.
7. The student will be able to assist a cooperative patient in moving up to and away from the chest board, demonstrating good judgment and empathy towards the patient.
8. The student will adhere to the code of ethics and appropriately interact with coworkers, patients, doctors and hospital staff.
9. The student will follow the dress code and college/hospital policy.
10. The student will attend and be on time for every day of clinical assignment.

CLINICAL ORIENTATION LAB ACTIVITIES

The following activities are to be performed by the clinical instructor or designated technologist and should be performed in order of sequence.

Lab 1

Medical asepsis, infection control and standard precautions.

Radiation Protection

- Closing doors
- Gonadal shields when appropriate
- Aprons for portable exams and fluoroscopy
- Department protocols

Lab 2

Equipment Manipulation.

- Tube locks
- Table movements / Wall bucky movements
- Control panel

Digital System (CR/DR).

- Workstation / patient list
- Image receptor sizes if applicable
- Image reader if applicable
- PACS

Lab 3

Proper way to transfer patients from wheelchairs and gurneys.

- Body mechanics
- Locks
- Patient safety
- Lifting methods

Lab 4

Chest Demonstration.

- Technical Factors
- Shielding
- Patient Position / landmarks
- Central Ray
- Collimation
- Marker Placement
- Respiration

Image Critique Session With Faculty

Anatomy Identification for KUB and 2-view Chest exams

Clinical Orientation Student Lab Activities

The following activities are to be performed by the clinical instructor or designated technologist. Please attach form to *Student Clinical Evaluation Orientation*.

Lab Activities	Date Completed	Student Initial	Tech's Initial	Comments
Medical asepsis				
Infection control				
Standard precautions				
Radiation Protection				
Closing doors				
Gonadal shields when appropriate				
Aprons				
Department protocols				
Equipment Manipulation				
Tube locks				
Table/Wall Bucky movements				
Control panel				
Digital System – CR / DR				
Identify IR/system with patient/exam information				
Process IR in the reader if applicable				
Flip, rotate, annotate and zoom image on monitor				
Save and send to PACS				
Retrieve exam from PACS				
Transferring Patients				
Wheel chairs				
Gurneys				
Body mechanics				
Locks				
Patient safety				
Lifting methods				
Chest Exam				
Technical factors				
Shielding				
Patient position /landmarks				
Central ray				
Collimation				
Marker placement				
Respiration				
Anatomy identification				

EVALUATION KEY AND GRADING CRITERIA

ORIENTATION

The Evaluation Key and Grading Criteria are to be used by the evaluator when assessing students' clinical performance.

Included is the description of each scale from the following categories:

- I. Radiation Protection
- II. Equipment
- III. Punctuality And Dependability
- IV. Co-Worker, Hospital Relationships
- V. Job Performance
- VI. Technical Factors
- VII. Positioning
- VIII. Patient & Nursing Procedures
- IX. Image Evaluation

An expanded description of an "A" scale is included to assist the evaluator when rating the student.

Forms to be used when evaluating students' clinical performance:

- Evaluation Key & Grading Criteria
- Clinical Evaluation
- Clinical Education Objectives

SCALE I RADIATION PROTECTION

- A. Demonstrates exceptional ability in practicing radiation protection based upon the radiation protection objectives.
- B. With few exceptions, demonstrates consistent ability in practicing radiation protection.
- C. Demonstrates adequate ability in practicing radiation protection.
- D. Demonstrates limited ability and understanding in practicing radiation protection.

DESCRIPTION OF SCALE A. RADIATION PROTECTION

If the student shows exceptional awareness and understanding of radiation protection, the student:

- Utilizes patient shielding appropriately.
- Always closes doors while radiating.
- Protects him/herself and others from ionizing radiation by wearing a lead apron, gloves and dosimeter.
- Verifies pregnancy status of a patient and follows department protocol.
- Collimates to image receptor or part size.

SCALE II. EQUIPMENT

- A. With few exceptions, the student has the understanding and skill needed to work all equipment as stated in the objectives.
- B. The student demonstrates an above average level of knowledge and understanding in equipment utilization.
- C. The student shows an average ability and awareness in equipment utilization.
- D. The student demonstrates unsafe working techniques and little or no skill in utilizing equipment.

DESCRIPTION OF SCALE A. EQUIPMENT

The student demonstrates exceptional understanding and utilization of all equipment by:

- Recognizing general radiographic rooms, fluoroscopy rooms, control or processing station, image library and the emergency room.
- Recognizing image receptor sizes, reader.
- Manipulation of tube locks, table movements, wall bucky movements and exposure console.

- Ensuring safety in the room for patient and personnel by being aware of all possible hazards (footstool, overhead x-ray tube, spilled liquid, etc.).

SCALE III. PUNCTUALITY AND DEPENDABILITY

- A. The student demonstrates consistent awareness and exceptional dependability in punctuality and break privileges.
- B. The student demonstrates consistent dependability in punctuality and break privileges. Has no more than one tardy or one sick day. He/she properly notifies the hospital via departmental policy of illness and tardiness
- C. The student demonstrates an acceptable attendance and break record. Has no more than two tardies or two sick days. He/she properly notifies the hospital via departmental policy of illness and tardiness. If not, each omission of notification will count as an additional tardy.
- D. The student demonstrates inconsistency in punctuality and length of break privileges. Has more than two tardies or two sick days. A “D” in this category will not allow for a grade higher than a “C” in Job Performance.

DESCRIPTION OF SCALE A. PUNCTUALITY AND DEPENDABILITY

A student demonstrates exceptional awareness and concern for proper punctuality and dependability by always:

- Reporting to his/her room ready to work 5 minutes before the start of his/her assigned shift.
- Taking only the time allotted for coffee and lunch breaks, and only when given permission by his/her technologist.
- Notifying the department in the event of absence or tardiness.
- Communicating whereabouts appropriately.

SCALE IV. CO-WORKER, HOSPITAL RELATIONSHIPS

- A. The student is extremely considerate of the needs of others, is enthusiastic, communicates well and contributes to a pleasant working environment.
- B. Most of the time the student is considerate of the needs of peers and staff and is an asset to the working environment.
- C. Generally, the student is considerate of his/her interactions with others but needs improvement in one or more of the objectives.
- D. The student shows some insensitivity in interactions with people and does little to promote a good working environment.

DESCRIPTION OF SCALE A. CO-WORKER, HOSPITAL RELATIONSHIPS

A student demonstrates exceptional ability in co-worker and hospital relationships by always:

- Adhering to code of ethics and respecting patients' rights
- Being tactful and courteous.
- Accepting constructive criticism and conducting him/herself in a professional manner.
- Being neat and clean, adhering to dress code.
- Being eager to work and cooperating with other technologists and peers.
- Demonstrating a team approach.
- Wearing proper identification.
- Communicating effectively
- Projecting professionalism
- Contributing to a pleasant working environment
- Following instructions
- Takes the initiative to assist and perform exams.

SCALE V. JOB PERFORMANCE

- A. With few exceptions, the student is dependable in carrying out his/her job completely and thoroughly with pride in his/her work.
- B. The student performs his/her job at an above average.
- C. The student has an average knowledge of his/her job and needs guidance in carrying out job specifics. Generally, the student needs assistance in completing tasks effectively.
- D. The student's quality of work is consistently below standards and needs constant supervision.

DESCRIPTION OF SCALE A. JOB PERFORMANCE

A student demonstrates exceptional ability in job performance by:

- Showing alertness and interest in an exam by asking pertinent questions.
- Identifying patients properly.
- Maintaining a neat, clean, well-stocked room.
- Communicating well.
- Following verbal directions with multiple steps.
- Being dependable and reliable.
- Demonstrating the ability to follow instructions.
- Making good use of free time.

- Demonstrating proper ethical behavior.
- Marks all radiographs correctly.
- Is willing to start exam on own.
- Is well organized.
- Minimum of two observation forms.

SCALE VI. TECHNICAL FACTORS

- A. The student has exceptional knowledge of exposure console.
- B. The student demonstrates adequate knowledge of exposure console.
- C. The student needs review of exposure console.
- D. The student has limited knowledge of exposure console.

DESCRIPTION OF SCALE A. TECHNICAL FACTORS

The student demonstrates exceptional technical knowledge and understanding of the exposure console by being able to:

- A. Properly use the rotor and exposure switch
- B. Set kV and mAs for Chest and Abdomen exams.
- C. Determine appropriateness of exposure based on exposure index (S-number, LgM, EI, etc.)
- D. Set panel at proper time during the exam

SCALE VII. POSITIONING

- A. The student successfully positioned for a 2-view chest exam on a patient.
- B. The student performed the positioning for a 2-view chest exam on a patient with few corrections.
- C. The student performed the positioning for a 2-view chest exam on a patient with average skill and knowledge but needed a lot of guidance.
- D. The student was unable to perform the positioning for a 2-view chest exam on a patient.

DESCRIPTION OF SCALE A. POSITIONING

The student with outstanding positioning skills is able to:

- Identify the specific centering and landmarks for the placement of the central ray.
- Ease the patient gently into an accurate position and stabilize the patient.

- Recognize the correct image receptor size / field of view.
- Identify the accuracy of the positioning and the anatomy demonstrated.
- Demonstrates pride, responsibility and independence in his/her work.
- Uses concise instructions to the patient.
- Identify basic radiographic anatomy of the chest and abdomen.

SCALE VIII. PATIENT AND NURSING PROCEDURES

- A. With few exceptions, the student demonstrates the understanding and skill needed in patient handling and nursing technique.
- B. The student demonstrates an above average ability and knowledge in the performance of patient handling and nursing techniques.
- C. The student shows average skill, knowledge and ability in the performance of nursing procedures and patient care - needs close supervision.
- D. The student demonstrates unsatisfactory knowledge and skill associated with nursing procedures and patient handling - needs constant and close supervision.

DESCRIPTION OF SCALE A. PATIENT AND NURSING PROCEDURES

The exceptional student will demonstrate knowledge and understanding of various nursing procedures and basic patient care as dictated by department policy by:

- Identifying patient properly and using his/her last name during procedure.
- Demonstrating empathy towards patient.
- Communicating effectively with the patient.
- Explaining exams to patients.
- Using a SAFE approach in transfer of patient
- Using patient's name during procedure.
- Maintaining patient's modesty / comfort throughout the exam (pillows, blankets, etc.).
- Practice proper medical asepsis.

SCALE IX. IMAGE EVALUATION

- A. The student consistently evaluates his/her images with accuracy and can describe the required criteria for an acceptable radiograph.
- B. With few exceptions the student evaluates his/her images with accuracy and describes the required criteria for an acceptable radiograph.
- C. The student shows a lack of retention in some areas of image evaluation.
- D. The student demonstrates limited ability and knowledge to evaluate images and required criteria for an acceptable radiograph.

DESCRIPTION OF SCALE A IMAGE EVALUATION

The student performs the following objectives accurately and consistently.

- Identifies optimum image exposure (no noise or saturation)
- Identifies proper anatomy and centering
- Identifies motion if present
- Describes image receptor and part centering
- Identifies proper patient positioning
- Identifies proper collimation

**CLINICAL EVALUATION
ORIENTATION**

STUDENT _____ **DATE** _____

CLINICAL SITE _____

I. RADIATION PROTECTION	A	B	C	D
	10	8	6	0

The student demonstrates awareness of the practices below:

- Considers pregnancy status
- Closes door during procedure and exposures
- Shields patients appropriately as needed
- Protects himself/herself and others from irradiation (wears apron, gloves, dosimeter)
- Collimates to image receptor or part size

COMMENTS: _____

II. EQUIPMENT	A	B	C	D
	10	8	6	0

The student was able to recognize the following areas and types of equipment:

- General radiographic room
- Fluoroscopy room
- Control or processing station
- Image Library
- Emergency room

The student will be able to safely and carefully:

- Move an overhead x-ray tube.
- Move the x-ray tabletop / wall bucky.
- Put image receptor in and out of the bucky tray if applicable.
- Properly align tube and IR/Bucky.
- Be able to differentiate between image receptor sizes / field of view.
- Process image

COMMENTS: _____

III. PUNCTUALITY AND DEPENDABILITY

A	B	C	D
15	13	11	0

- Is punctual in reporting to room 5 minutes before start of shift
- Communicates whereabouts appropriately
- Minimum loss of time due to absenteeism
- Observes length of breaks
- Properly notifies department in case of absence or tardiness

Number of sick days: _____

Number of tardies: _____

COMMENTS: _____

IV. CO-WORKER, HOSPITAL RELATIONSHIP

A	B	C	D
10	8	6	0

- Adheres to code of ethics
- Is tactful and courteous with everyone
- Demonstrates interest and positive attitude
- Accepts constructive criticism
- Projects professionalism
- Adheres to dress code
- Communicates effectively
- Follows instructions
- Contributes to a pleasant working environment
- Takes the initiative to assist and perform exams.

COMMENTS: _____

V. JOB PERFORMANCE

A	B	C	D
15	13	11	0

- Is alert and interested in what is happening in room (asks pertinent questions).
- Reads the requisition and properly identifies patient by checking name before exam
- Maintains a neat, clean and well-stocked room.
- Follows verbal instructions with multiple steps
- Communicates effectively
- Demonstrates initiative and makes effective use of free time
- Demonstrates proper ethical behavior
- Marks all radiographs

- Is willing to start exam on own
- Is well organized
- Minimum of two observation forms

COMMENTS: _____

VI. TECHNICAL FACTORS

A	B	C	D
10	8	6	0

The student:

- Can properly use the rotor and exposure switch
- Can set kV and mAs for Chest and Abdomen exams.
- Determines appropriateness of exposure based on exposure index (S-number, LgM, EI, etc.)
- Sets panel at proper time during the exam

COMMENTS: _____

VII. POSITIONING

A	B	C	D
10	8	6	0

The student:

- Observed a variety of radiographic procedures
- Participated in demonstration of a 2 view chest procedure
- Successfully performed a 2 view chest procedure on a patient
- Knows positioning criteria for 2-view chest and abdomen
- Is gentle toward patients when positioning
- Positions the patient carefully and avoids manipulation of the injured area
- Identified basic radiographic anatomy of the chest and abdomen
- Uses concise instructions to the patient

COMMENTS: _____

VIII. PATIENT CARE

A	B	C	D
10	8	6	0

- Identified patients properly
- Communicates effectively

- Explains exams to patients
- Can safely transfer patients
- Maintains patients' modesty, privacy and comfort
- Offers patients assistance, shows empathy and is kind and reassuring
- Practices proper medical asepsis

COMMENTS: _____

IX. IMAGE EVALUATION

A	B	C	D
10	8	6	0

- Identifies optimum image exposure (no noise or saturation)
- Identifies proper anatomy and centering
- Identifies image and patient positioning
- Describes image receptor and part centering
- Identifies proper patient positioning
- Identifies appropriate collimation

COMMENTS: _____

Clinical Education Evaluation Total Points _____

LETTER GRADE _____

Signature of Student: _____ Date _____

Signature of Evaluator: _____ Date _____

Signature of Evaluator: _____ Date _____

Signature of Evaluator: _____ Date _____

Grading Scale

95-100	= A
87-94	= B
80-86	= C
Below 80	= D

Failure to achieve "C" performance in any one of the evaluation categories will be sufficient cause to put the student through a probationary period.

After placement on probation the student must rate and maintain a "C" in all areas of clinical performance in order to continue and complete the Foothill College Radiologic Technology Program. Failure to achieve an overall "C" grade will result in the student's dismissal from the Program.