Lab Project #1: Guidelines

When: *Beginning of lab Week #7*
Where: *In your assigned room* (as per your lab schedule)
Assessment Length: 10 *minutes total*
Testable Content: <u>One</u> *Routine (aka. 3 views; AP/PA, Oblique, & Lateral) of either Hand, Thumb,* ***<u>or</u>*** *Wrist*

<u>How it will work:</u>
Before the 10-minute timer starts:

- The room must be setup as follows:
  - X-ray tube facing a wall in the middle of the room, green and blue locks OFF
  - IR selection set to WALL
- The console must have 6 different patients entered into the console (pre-set by staff)
  - Note: all patients will match the requisitions provided
- Six different requisitions (Hand, Wrist, or Thumb) in the black "in-box" at each room
  - Note: each body part will have a requisition for a right and left side
  - *Once a requisition for a body part is selected, it is removed from the "in-box" (ex. Left hand is randomly selected = both requisitions for hand are removed before the next assessment begins)

The timer will start immediately <u>after</u> you select the first projection on the console.
**The lab time for the project ends after you clean <u>or</u> if the time runs out. After lab, use the PowerPoint template to upload your images and complete the assessment, then submit to Edenbrook.*
Lab projects are due on *<u>Monday November 1st @8am</u>*. Late submissions are awarded a 10% per day deduction. Marks will be posted to Edenbrook *after* all lab projects are submitted. Feedback will be providedvia Edenbrook.

<u>General Lab Project Rules:</u>

- Everyone must participate as a technologist when being assessed
- Everyone must participate as a patient at least once, when not being assessed (rotations assigned)
  - "Patients" are not allowed to purposefully help the "Technologist" during an assessment (ex. place yourself into a perfect fan-lateral position)
- Numbers assigned to identify chronological order of assessments (i.e. anyone assigned a "1" will be assessed first, "2" will be assessed second, etc.)
- Requisitions are NOT recycled:
  - You may select any one of the requisitions that remain in the "in-box" at your room
- Inappropriate language during your assessment or a classmate's is rewarded a 5% deduction
- Medical asepsis is required, even if the lab time for the project ends
- Instructors are not allowed to assist students during an assessment
- Instructors will "re-set" the room between lab projects
- Required to audibly say "BEEP" to identify an exposure was taken
- Follow the rubric below (note: also accessible via Edenbrook)

Marking Rubric:

Total Marks: 25 (worth 5% of final course grade)

Criteria	4 Points	3 Points	2 Points	1 Point	0 Points
Console	Patient selection matches exam performed Console set to Examination screen Correct technique selected (view selected matches view performed) Correct IR selection	**Missing 1** component	**Missing 2** components	**Missing 3** components	**Missing 4** components
Equipment	Correct IR orientation & placement (ex. Landscape vs. Portrait; IR is flat, and NOT over digital IR) Correct IR size used Correct SID (+/-3cm) measured and used Appropriate tube angle used (black lock must be engaged for all straight-ray imaging)	**Missing 1** component	**Missing 2** components	**Missing 3** components	**Missing 4** components
Pt. Position.	Correctly positioned patient anatomy for the part ordered Correctly positioned patient for the view selected Required patient anatomy is appropriately centered to the IR (i.e. ROI is over the active surface of the IR)	**Missing 1** component	**Missing 2** components	Anatomy clipped (aka. required anatomy and/or anatomy shadow not included in the light field: due to poor centering or field size too small)	Imaged the wrong body part (i.e. wrong side imaged or incorrect view performed)

Criteria	4 Points	3 Points	2 Points	1 Point	0 Points
Anatomical Markers	(As per edenbrook marker rules): Anatomically correct Correct location Correct orientation	Anatomically correct but: **Missing 1** component	Anatomically correct but: **Missing 2** components	Anatomically incorrect	No marker used
ALARA	Patient was shielded properly (correct location/type used) Correct centering (of Central Ray) Collimation included all required anatomy (and anatomy "shadow")	Patient was shielded incorrectly (incorrect location/type used)	Incorrect centering of CR (miscentered by 1-inch/2.5-cm or greater) Or Collimated field size too large (extends beyond required anatomy by 1-inch/2.5-cm or greater)	Collimated light-field is projected off the IR	No shielding used
PowerPoint Notes	Description of how SID was measured is included for all projections Bontrager recommended technique (as per your Technique Chart) included for all projections IR considerations included (ex. When the cassette was replaced & cleaned) Shielding specifics included for all projections (ex. Type of shielding used & where it was placed)	**Missing 1** component	**Missing 2** components	**Missing 3** components	**Missing 4** components
Medical Asepsis	*1 Mark: All or Nothing*	Equipment was cleaned properly immediately following assessment (or during allotted time)			

Recommended Workflow:

1. Select a requisition, and review the pertinent information
    - Check: pt. name, D.O.B., body part ordered, and anatomical side to be imaged
2. On the console, select the patient name and D.O.B. that matches your requisition and move to the examination screen
3. Select the view you would like to perform and select the appropriate IR
4. Take an image of the console setup
5. *Grab all the cassettes you need for the exam and set by the exam room door
6. Setup your exam room (ex. move stool to end of table)
7. Call the pt. into the exam room
8. Guide the pt. into the proper position for your selected view (ex. Ask the pt. to sit on the stool, then place their hand flat on the cassette provided. etc.)
9. Provide patient shielding
10. Align the tube and IR and ensure correct SID
11. Ensure required anatomy is centered in the light field and adjust positioning as needed
12. Adjust collimation to include only required anatomy
13. Correctly place your anatomical marker
14. Ask the pt. to hold still and take an image of:
    - The x-ray tube (including the measuring tape as SID readout on tube may differ)
    - The patient position
    - The anatomy of interest (with the collimation light on)
15. Walk to the console, double check it is setup properly and audibly say “BEEP”
16. Tell the pt. they can move, then re-set your console to the next projection you want to perform
17. Take an image of the console setup
18. Replace the exposed IR with an unused cassette
19. Reposition the patient for the next view
20. Repeat steps 10-15 as needed
21. When all images are completed you must clean all equipment used

Notes for project submission:

- Use the PowerPoint Template (marks will be deducted if this template is not used; example excessive slides are included, format is different)
- When using cassettes, an image of the measuring tape showing the correct SID must also be included (as the electronic readout on the tube is not always accurate when using cassettes)
- For full marks ensure your images demonstrate the rubric criteria (example: ensure ½ - 1 inch of light is visualized beyond **all** required anatomy)
- Ensure the digital IR is NOT under the cassette