

Radiation Safety Policies

Apply the following radiation safety measures and regulations to yourself, your patients, and other personnel, as instructed to prevent unnecessary and harmful radiation exposure.

ALARA states that the Annual Investigation Levels (12 months) be based on **10%** of the occupational limit of 5000 mrem (5 rem) to equal **500 mrem/quarter**.

Hinds Community College's Dental Assisting Technology program records student radiation exposure on a quarterly basis. The student must not exceed **150 mrem** (.15rem)/quarter. Each student is made aware of their quarterly exposure and must initial to signify understanding. If the student's exposure reading exceeds 150 mrem, the level will be considered excessive. The student will be required to meet with their radiology instructor/ Dental Coordinator to discuss and correct possible reasons for the over exposure, and the student's doses will be closely monitored for the remainder of the calendar year.

Radiation Safety Policies:

1. Wear the dosimeter badge at or above chest level at all times while at Hinds Community College and all clinical site locations. If student has declared pregnancy, an additional dosimeter badge will be ordered and this will be worn at waist level to measure fetal radiation exposure.
2. Do not wear the dosimeter badge/expose the dosimeter badge to:
 - A. outside the building especially in the sunlight
 - B. while personally receiving an x-ray examination
 - C. water (laundry, rainy weather, etc.)
3. Dosimeter badges **should not** be stored/placed:
 - A. in the car for long periods of time due to the high heat and sunlight
 - B. in a purse close to a cellular device
 - C. close to a microwave or television
 - D. in the dryer

Storing dosimeter badges in these places can cause inaccurate readings of the radiation level received during the time of wear.

4. If exposing radiographs in an area without lead lined barriers, the minimum distance of the operator from the tube and patient should be six (6) feet at a 45-degree angle.

5. Time, distance and shielding are the three factors which reduce exposure to the individual.

6. If the student has declared pregnancy, she must wear a lead apron when exposing film and must have a letter from her physician, stating the student may continue to work

with ionizing radiation as long as proper precautions are taken. In addition, an additional dosimeter badge will be ordered for the student, after declaring her pregnancy, to detect fetal radiation.

7. Do not fold or bend lead aprons. Hang aprons to prevent damage and loss of protective qualities.

8. All patients that are having radiographs taken should always wear a lead apron with a thyroid collar.

9. Never allow anyone to be in the x-ray room when exposing radiographs unless the person is protected with a lead apron.

10. Hinds Community College does not allow pregnant women to be patients for our student's in radiology II. The full list of patient requirements will be given to all students before entrance into radiology II lab.

11. Limit x-ray exposure factors to a minimum. As discussed in lecture, the student will properly reduce the exposure time on special patients, such as children, edentulous patients, etc.

12. If using the NOMAD portable x-ray unit, follow radiation exposure safety policies, as instructed in class.