



**VERA Z. DWYER COLLEGE
OF HEALTH SCIENCES**

INDIANA UNIVERSITY SOUTH BEND

**TITLE: Radiation Safety
and Monitoring Policy**

POLICY NO: R-3

EFFECTIVE DATE: 12-15-17

**TARGET GROUP: CHS
Students**

**SECTION: Radiography
Student Policy**

**REVISION DATE: December
15, 2017 (approved
December 15, 2017)**

Purpose:

The purpose of this policy is to inform the student of the radiation policies of the Radiography Program.

Policy:

Education – Radiation Safety:

Students must protect themselves, their patients, visitors and members of the health care team from ionizing radiation by practicing radiation safety and complying with ALARA principles. Students are provided instruction on radiation safety and introduced to ALARA principles at the onset of the program in AHLT-R103. Radiation safety and ALARA principles are reviewed throughout the duration of the program.

In keeping with JRCERT Standard Four: Radiation Safety, students are required to employ proper radiation safety practices. Students must understand basic radiation safety practices prior to being assigned to a clinical setting. Students must practice radiation safety by adhering to the following:

1. Students must never repeat any radiograph without the direct supervision of a registered radiographer. There are no exceptions to this policy and failure to comply with the Repeat Policy will result in disciplinary action that could delay progression into the program.
2. Students must not hold image receptors or patients during any radiographic procedure. A student should not restrain/hold a patient during a radiographic procedure when an immobilization method is the appropriate standard of care. When immobilization techniques fail, students are encouraged to ask assistance from family members and non-radiology members of the health care team; lead shielding must be provided.
3. As students progress in the program, they must become increasingly proficient in the application of radiation safety practices.
4. Students are required to wear lead aprons during any mobile radiographic procedure; lead aprons and thyroid shields during any fluoroscopic/surgical procedure.
5. Students must successfully complete radiation safety training prior to entering the clinical setting and will be required to review material covering radiation safety and ALARA principles throughout the program.
6. Failure to adhere to any of the radiation safety policies, students may receive a Problem Assessment Form or Learning Contract depending on the severity of the problem.

Radiation Monitoring Policy:

All monthly radiation badge dosimetry readings for students will be monitored by the Radiography program's designated Radiation Safety Officer, the Program Director. Student radiographers should adhere to ALARA standards as outlined by the federal regulations of the United States Nuclear Regulatory Commission (NRC) Guide.

Radiation Monitoring Devices:

Students are provided with radiation exposure monitoring badges at the start of the radiography program. When participating in clinical experience, the student must wear their assigned radiation monitoring badge. Radiation badges should not be switched or exchanged between students. Absence of the radiation monitoring badge will constitute a violation of program policy and the student will be asked to leave clinic until the radiation monitoring badge is available. The student will be required to make-up any missed time.

Radiation badges should be worn at the collar and placed outside the lead apron during fluoroscopic/portable/surgical procedures. Radiation monitoring badges should be stored in a secure area when not worn, away from radiation sources. Badges should be handled with care as they are sensitive to heat and microwaves. Lost or damaged badges must be reported to either the Clinical Coordinator or the Program Director for replacement and students will incur the cost of replacement.

Radiation badges will be returned on a monthly basis to the Clinical Coordinator. Once the report is available, the Clinical Coordinator will review and verify the amount of exposure with the student within 30 days of receiving the report. The Clinical Coordinator will print off a summary of the badge report for the students to initial and date verifying that the report has been reviewed in compliance with ALARA standards. Monthly badge readings will be printed and stored on-campus in a secure file. Students must return their radiation monitoring badges at the conclusion of the radiography program and each student will be provided with a copy of their final badge reading approximately one month after graduation.

Students that exceed a monthly dose of 20 mrem must have a counseling session with the program director and/or clinical coordinator.

Any questions or concerns will be handled by the Program Director or Clinical Coordinator.

Radiation Safety Policy:

The Nuclear Regulatory Commission (NRC) has established guidelines for annual radiation exposure.

1. Radiation badge readings that equal or exceed NCR dose limitations (Level I -125 mrem / qtr or Level II — 375 mrem / qtr) per year will require the student to have a counseling session with the program director and/or radiation safety officer (medical advisory).
2. Radiation exposure doses recorded at or above Level II - 30% of Federal Limits or higher - 1500 mrem/ month) will be investigated according to NRC regulations.
3. Radiation badge readings that exceed Level I, but do not exceed Level II must participate in a discussion about radiation dose reduction and radiation protection and safety.
4. Radiation badge readings that exceed Level II, are required to submit a written history of their clinical activities to help the faculty and the student determine the cause of the excess

exposure dose. Students will also be required to attend a remediation session covering radiation safety, radiation protection and ALARA principles.

Students will be expected to wear required radiation protective devices (i.e. aprons, gloves, etc.) when participating in applicable radiographic exams. Failure to adhere to expected standards as stated in the American Registry of Radiologic Technologists "Standard of Ethics," will result in issuance of a problem assessment form or learning contract dependent on the severity of the event. The same standards apply to limiting radiation exposure to the patient through effective shielding techniques and proper selection of exposure factors. All patients, regardless of age, are to be shielded when appropriate unless stated otherwise by the clinical site's protocol.