Gurnick Academy of Medical Arts Radiation Protection Policy

The following are the elements of Gurnick Academy of Medical Arts’ radiation protection program. Enforcement of the radiation protection policy is the responsibility of the Radiation Safety Officer (RSO) who is by default the program director / coordinator of the radiologic technology program of that campus. The Alternate RSO (ARSO) is the program director / coordinator of the radiologic technology program of the other campus or a qualified designee from the radiologic technology faculty.

Qualifications:

Radiation Safety Officer:

Name: Elizabeth Hopkins, MBA, R.T.(R)

Relevant Education: Graduated in 2008 from Owens Community College: Associate’s Degree in Applied Science Majoring in Radiography

Relevant Credentials: ARRT (R) continuously since 2008 Reg.# 450079 California continuously since 2016 Cert. # RHT 00106770

Alternate Radiation Safety Officer:

Name: Theodore C. Vanderlaan

Relevant Education: Graduated in 1984 from Washington Adventist Hospital School of Radiography.

Relevant Credentials: ARRT (R) continuously since 1984 Reg.#193959 California continuously since 2013 Cert. # RHT 00102527

Annual Review:

The RPP is reviewed annually by the RSO and ARSO and indicated by the signature at the bottom of this document.

Dosimeter:

Each student is to wear a dosimeter during any activities where radiation is present—at the clinical education centers or on campus during labs utilizing the energized equipment.

All radiologic technology students will be issued a personnel monitoring device (radiation badge) at the beginning of the program. The monitor is designed to approximate maximum radiation exposure and whole body dose. The dosimeter must be worn at the collar level outside of any protective apron and/or thyroid shield being worn.
The dosimeter is to be read by the 5th day of every month per the manufacturers guidelines. By the 15th day of month the RSO will review all dosimetry reports.

Students are required keep the dosimeter with them during the week as they will need it at both their clinical sites as well as performing laboratory experiments on campus. It is the responsibility of the student to ensure that the dosimeter is worn and stored properly meaning that it is shielded from excessive heat, chemicals, sun exposure, laundering or any other environment that could cause an inaccurate reading.

Each student's radiation exposure is monitored monthly throughout the program. The dosimeter readings are reviewed by the RSO and archived indefinitely. Students have access to their monthly dosimeter readings. Any excessive dose is identified, reviewed with the student for accuracy and if deemed accurate a determination of the cause is noted. If not accurate, the source is noted in the student's dose report.

Upon graduation or any other termination from the program each student is automatically provided a copy of their dosimetry report in PDF format via e-mail or in print form at their request.

Any excess in exposure will be followed-up in order to determine safe practice of ALARA. Excessive exposure will be reported to the State of California Department of Public Health- Radiologic Health Branch as prescribed by California law in accordance with 10 CFR 20.2202(a). The reporting policy and form utilized can be found in the R.T. Student Handbook in the ‘Policies’ section entitled ‘Excessive Dose Policy.’

Per the United States Nuclear Regulatory Commission Standard 10CFR 20.2202- Notification of Incidents:

a) A student shall immediately report to the Program Director any event involving byproduct, source, or special nuclear material used by the student that may have caused or threatens to cause any of the following conditions:

An individual to receive--

1. A total effective dose equivalent of 25 rems (0.25 Sv) or more; or
2. A lens dose equivalent of 75 rems (0.75 Sv) or more; or
3. A shallow-dose equivalent to the skin or extremities of 250 rads (2.5 Gy) or more; or

b) A student shall, within 24 hours of discovery of the event, report any event to the Program Director involving loss of control of licensed material used by the student that may have caused, or threatens to cause, any of the following conditions:

An individual to receive, in a period of 24 hours—
1. A total effective dose equivalent exceeding 5 rems (0.05 Sv); or
2. A lens dose equivalent exceeding 15 rems (0.15 Sv); or

(c) The Program Director shall prepare a report filed with the Commission pursuant to this section so that names of individuals who have received exposure to radiation or radioactive material are stated in a separate and detachable part of the report (see below).

(d) Reports made in response to the requirements of this section will be made as follows:

(1) The Emergency Notification process shall make the reports required by paragraphs (a) and (b) of this section to the California Department of Public Health, Radiologic Health Branch, in accordance with 10 CFR 50.72; and section 20.2202 by telephone at (916) 327-5106.

**Annual Occupational Dose Limits:**
Any dose received must not exceed the annual occupational dose equivalent limits established by the California Code of Regulations, Title 17 and Nuclear Regulatory Commission regulations standard 10 CFR subpart C-Occupational Dose Limits 20.1201.

<table>
<thead>
<tr>
<th>5 rem / year</th>
<th>Whole body</th>
<th>Total effective dose equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 rem / year</td>
<td>Extremities</td>
<td>Shallow dose equivalent</td>
</tr>
<tr>
<td>15 rem / year</td>
<td>Lens of the eye</td>
<td>Eye dose equivalent</td>
</tr>
</tbody>
</table>
Reporting of Student Radiation Safety Incidents

1. Incident shall be reported to the Program Director as soon as possible; this includes a student's excessive dosimeter reading, errors and incidents related to radiation safety.

2. For all incidents, the clinical affiliate or laboratory instructor will complete the following Reporting of Student Radiation Safety Incidents Form (see next page) and send it to the Program Director as soon as possible following the incident as described above.

3. Incidents must be reported to the Program Director within 12 business hours and/or as stated above. The State of California Department of Public Health Radiologic Health Branch must be notified by the Program Director within 24 hours of a reported excessive exposure. (See sample -Reporting of Student Radiation Safety Incidents Forml on next page.)

4. A follow-up investigation will be conducted by the Program Director, determining cause, effects, and solutions, using the form entitled -Follow-Up of Student Radiation Safety Incidents.1 (See next page.)
Gurnick Academy of Medical Arts Radiologic Technology Program
Reporting of Student Radiation Safety Incidents Form

Name of Student: ____________________________________________________________

Date of Incident: __________________________________________________________

Location (and address) of Incident: ___________________________________________

Phone Number: ____________________________________________________________

Supervising Technologist: ________________________________________________

Type of Incident: __________________________________________________________

Describe how incident occurred: ____________________________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

Date and time Program Director was notified: _________________________________

How was the incident attended? ____________________________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

Student Signature: ___________________________ Date: _______________________

Print Student Name: _______________________________________________________

Clinical Instructor Signature: __________________________ Date: _________________

Print Clinical Instructor Name: _____________________________________________
RADIATION PROTECTION POLICY

The following ALARA radiation safety rules have been established for the protection of the patient, other personnel, and students from ionizing radiation during the radiology observation and clinical education. These rules are a combination of State and Federal regulations, laws and additional guidelines in the use of ionizing radiation. The rules are mandatory and any exception must be reported to the medical imaging department and program director immediately.

1. Personnel monitoring devices:
   a. A radiation monitoring device, properly placed, must be worn at ALL times during both the observation and clinical education phases, or whenever radiation is present.
   b. The student is to leave the radiation monitoring device at the clinical education center in the prescribed area provided for radiographers. There is an exception to this rule as described in "c" below.
   c. The student is required to bring his or her radiation monitoring device to an alternate location when attending supervised lab activities using radiation. During transfer, the student is to be careful that the device is placed in a location that will protect it from exposure to any radiation, heat, or chemicals which might affect an accurate reading.
   d. When lead aprons are used, the radiation monitoring device must be placed outside the apron and at the collar level.
   e. Monitoring devices shall be turned in to the program director by the 5th of every month. NO EXCEPTIONS. The dosimeter readings will be placed in a binder in the program director's office and will be archived indefinitely.
   f. Students will be required to initial and date the monthly report after reviewing it with the program director.
   g. In the event that an overexposure is reported on the monthly readout on the radiation monitoring records, the student will be notified and an investigation will ensue.
   h. In the event that an overexposure on the monthly readout on the radiation monitoring records, the CDPH-RHB will be notified and an investigation will ensue.
   i. Students are not allowed to wear their personnel monitoring device when receiving radiation exposure as a patient.
   j. Lost or accidental exposure of a radiation monitoring device shall be reported to the program director. A written notification is required.

2. During any x-ray exposure, students must do one of the following:
   a. Leave the room
   b. Be protected behind a leaded shield or wall
   c. Be otherwise suitably protected for surgery, portable, or fluoroscopic work.
3. Students are NOT permitted to hold or support a patient during any exposure. If a student is asked to do so by a technologist, the student is expected to report the event to the clinical instructor, clinical coordinator and program director.

4. Students are allowed to observe a patient during exposure from an adjacent room or hall only when protected by a lead-glass protective window.

5. When a student is located in an area or hallway that is adjacent to a radiographic room, the student is not allowed to sit in a direct line with the tube or radiographic table even if it is not being used at the time.

6. During an exposure or procedure, students are not allowed to be placed in a direct line with the central ray, even when wearing a lead apron.

7. Under no circumstances will a student or any other human being serve as a "patient" for test exposures or experimentation.

8. During fluoroscopic procedures, students will adhere to the following guidelines:
   a. A lead apron must be worn at all times.
   b. The student must remain behind an adequate lead protective screen and not in a direct path with either the tube or patient.
   c. The radiation monitoring device must be worn outside the lead apron at the collar level.
   d. The student must stand as far from the patient and tube as possible, consistent with the nature of the examination.
   e. When practical, the student is to stand behind a secondary barrier.
   f. The student must wear lead gloves and a thyroid shield when in proximity to the patient (less than six feet).

9. With permission of the clinical instructor, students may make test exposures on inanimate objects or phantoms. All radiation safety rules must be followed during the test exposures. A certified radiologic technologist must be available for the indirect supervision of students during test exposures.

10. When observing or participating in radiographic procedures in surgery, trauma, or mobile imaging:
    a. A lead apron must be worn.
    b. A monitoring device must be worn outside of the lead apron.
    c. The student is to stand as far from the patient and tube as practical.
    d. The student is to stand so that the central ray is directed away from any observers.
    e. Observe all regulations that apply to surgery, such as preserving sterile fields, wearing surgical garments, etc. (The supervising technologist will provide details.)
    f. Student must step outside of the room if s/he can not stand at least 10 feet from the patient.
Radiation Protection Policy (cont'd)

11. Permission to make actual exposures on patients, under the supervision of a certified radiologic technologist, shall be determined by all of the following:
   a. The permission of the radiologist/department manager/clinical instructor.
   b. The permission of the program director and clinical coordinator.
   c. Successful completion of the steps as outlined by program policy for each exam attempted in the clinical environment (in the following order):
      - Successful completion of the didactic material and exams as presented in the classroom.
      - Successful completion of the classroom lab practice and associated competency check-offs.
      - Active enrollment in a clinical lab experience course.
      - The student's ability to demonstrate and record proficiency utilizing the clinical objectives and the procedures outlined in the program's policy for demonstrating competency.

12. ALL repeats, regardless of the student's level of competency, must be completed under the direct supervision of a certified radiologic technologist. (See "Policy on Supervision of Radiologic Technology Students" for a description of direct supervision.)

13. The student will be under direct supervision when working in surgery, angiographic facilities, fluoroscopy, on pediatric exams, CT, in the emergency room and/or in any other remote locations during 100 percent of the clinical training.

14. Upon graduation from the program, students are advised to obtain his or her cumulative radiation monitoring record and to forward the data to the company which will handle the student's radiation monitoring during future employment. Students are further advised to maintain a lifetime record of radiation exposure incurred as a radiation worker.

15. When in doubt about practical procedures or practices regarding radiation protection, students are encouraged to contact the program director or clinical coordinator for clarification and instructions.

Student's Signature: __________________________

Student's Name: ___________________________ Date: ___________________________

School Official: ___________________________ Date: ___________________________
Pregnancy Policy

Gurnick Academy of medical Arts’ Radiologic Technology Program provides all students a safe environment for their education both clinically as well as in labs where radiation is used. Furthermore, students of the procreative age and/or who are declared pregnant are assigned and monitored in accordance with regulations for Prenatal Radiation Exposure that are set out by the U.S. Nuclear Regulatory Commission.

In compliance with Nuclear Regulatory Commission regulations regarding the declared pregnant student, students have the option of whether or not to inform program officials of pregnancy. However, if a student chooses to declare her pregnancy to program officials, she must provide written notification. This is to insure compliance with the lower radiation exposure limit and dose monitoring requirements. At any time, a student may withdraw her declaration without question.

A student who has chosen to declare her pregnancy will be allowed to choose one of the following options for completing the training at Gurnick Academy of Medical Arts. With notification to the Program Director, the student may change from one option to another at any time during the pregnancy as long as all program objectives, courses, and competencies are completed.

Options:

1. Continuing the training without modification or interruption. This option means that the student would agree to attend and complete all classes, clinical assignments, and competencies in a manner consistent with her peers within the guidelines set forth by the instructors and Gurnick Academy of Medical Arts.

2. Continuing the training with a modification of clinical assignments. This option means the student would have the choice to delay clinical assignments and/or competencies in areas, such as fluoroscopy, angiography, portables, C.T. and surgery. Every effort will be made for the student to accomplish the aforementioned clinical assignments and/or competencies during the 24 months of the program. However, in order to accomplish this successfully, the training may need to be extended. The student is required to make up all clinical and didactic hours missed and to complete all the necessary competencies.

3. The student may take a six-month leave of absence from the clinical setting. The student would be expected to continue attending didactic courses. The clinical assignment would be extended to comply with the 2000 clinical hours (1,856 are to be completed at a clinical education center and the balance can be in labs), as required by the State of California Department of Public Health Radiologic Health Branch. The student is required to make up all clinical hours missed and to complete all the necessary competencies.
Pregnancy Policy, cont'd

4. The student may take a six-month leave of absence from both the didactic and clinical components of the program and be allowed readmission to the program. The student is required to make up all clinical and didactic hours missed and to complete all the necessary competencies. This option timing is contingent upon an available student position in an appropriate clinical education center.

Declared Pregnancy Policy Stipulations/Mutual Understanding:

1. Student will sign and date the declared pregnant student statement.

2. Student will present a letter from the attending physician releasing the student to continue in the training.

3. Student will meet with the hospital/clinic Radiation Safety Officer, Program Director, and Clinical Instructor to discuss options and to receive counseling in radiation protection measures.

4. Student will not be present inside a radiographic room when a radiation exposure is made.

5. Student will not hold or restrain a patient receiving ionizing radiation.

6. Student will wear a minimum of two radiation monitoring devices, one at abdomen level and the other at the collar/outside of the wraparound apron. The abdominal monitoring device will indicate the abdomen dose and will be monitored monthly for the entire gestation. It is the student's responsibility to submit her monthly dosimeters in a timely fashion.

7. If monitoring records demonstrate the unborn child has received 500 millirems, the student will be immediately removed from the clinical setting and reassigned to an area of duty in which radiation hazards or exposure does not present any risk.
Declared Pregnant Student Acknowledgement Form

I, __________________________________________________________ voluntarily declare that I am pregnant and (select one):

☐ Choose to remain in the program without modification or interruption
☐ Continue my training with modified clinical assignments
☐ Take a 6 month leave of absence from the clinical settings (delayed graduation)
☐ Take a 6 month leave of absence from the program (delayed graduation)

Initial Below:

_____ I will provide a letter from my attending physician releasing me to continue in the training.

_____ I am meeting with the Radiation Safety Officer, Program Director and Clinical Coordinator and to discuss options and to receive counseling in radiation protection measures.

_____ I understand that I am not to be present inside a radiographic room when a radiation exposure is made.

_____ I will not hold or restrain a patient receiving ionizing radiation.

_____ I have requested / received an additional fetal monitor which, in addition to my normal monitoring device worn at the collar level outside of the protective device, is to be worn at abdomen level underneath any protective device. The abdominal monitoring device will indicate the abdomen dose and will be monitored monthly for the entire gestation. It is my responsibility to submit my monthly dosimeters in a timely fashion.

_____ I understand that if monitoring records demonstrate the unborn child has received 500 millirems, I will be immediately removed from the clinical setting and reassigned to an area of duty in which radiation hazards or exposure does not present any risk.

Signed:

______________________________________________
Student Name

______________________________________________
Date
Annual Radiation Protection Program Review and Approval

We, the undersigned, have reviewed the Radiation Protection Program and approve it for the year 2017.

Elizabeth Hopkins  RSO  4/3/2017
Date

Theodore C. Vanderlaan, ARSO  4/3/17
Date
March 31, 2017

Radiation Safety Officer Acknowledgment

I, Elizabeth Hopkins, understand and accept my role as the Radiation Safety Officer for the Concord Campus of the Radiologic Technology Program.

Signed,

[Signature]

Elizabeth Hopkins, MBA, R.T.(R)
March 31, 2017

Alternate Radiation Safety Officer Acknowledgment

I, Theodore C. Vanderlaan, understand and accept my role as the Alternate Radiation Safety Officer for the Concord Campus of the Radiologic Technology Program.

Signed,

[Signature]

Theodore C. Vanderlaan, J.D., R.T.(R)