

# Student Handbook

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University of Iowa Carver College of Medicine  
Radiologic Technology Education  
Radiation Sciences

2025 – 2026 Academic Year

## Preface

Students of the Radiologic Technology Education Program are responsible for knowing and adhering to the policies and procedures contained in this handbook. Students must comply with these policies as well as the University of Iowa student policies [[Policies | Dean of Students - The University of Iowa \(uiowa.edu\)](#)]. Program faculty will consult this manual to ensure fair enforcement of the policies and procedures contained. If the student believes a policy has been enforced unfairly, the student should consult the grievance policy for guidance.

Policies and procedures in this manual are subject to change. Students will be notified in writing about any policy changes and/or updates.

## Note

Except where otherwise noted:

- “Degree” will refer to the Bachelor of Science in Radiation Sciences degree program.
- “Program” will refer to the Radiologic Technology Education Program.
- “Faculty” will refer to the Program Director, Radiation Sciences Educators, and designated adjunct instructors.
- “Administrative Director of Radiation Sciences” will refer to the Administrative Director of Baccalaureate degrees in Radiation Sciences.
- “Degree manual” will refer to the Policies & Procedures manual for Students in the Bachelor of Science Radiation Sciences and Bachelor of Science in Nuclear Medicine Technology.

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## Mission Statement, Goals & Learning Outcomes

### Mission Statement

The mission of the Radiologic Technology Education at the University of Iowa is to recruit and provide quality individuals with an ambitious, extensive education that equips them with knowledge, skills, and abilities to provide ethical, high-quality, compassionate medical imaging. The students will be adaptable to varied healthcare settings with varied patient populations and effectively interact with other members of the healthcare team to provide the best possible patient care.

### Goals & Learning Outcomes

**Goal 1:** Graduate clinically competent radiographers.

- Students demonstrate quality positioning skills.
- Students demonstrate quality technical skills.
- Students apply appropriate radiation safety practices.

**Goal 2:** Students demonstrate effective communication skills.

- Students demonstrate good written medical communication skills.
- Students use effective communication to provide quality patient care.

**Goal 3:** Students successfully apply critical-thinking and problem-solving skills.

- Students demonstrate the ability to adjust technical factors for nonroutine situations.
- Students demonstrate the ability to adjust positioning for nonroutine situations.

**Goal 4:** Students understand and practice professionalism.

- Students demonstrate an understanding of professionalism including ethics and integrity.
- Students adapt to human variance.

**Program Effectiveness Data:** Program is effective at graduating entry level technologists.

- Students graduate from program.
- Graduates attain ARRT radiography certification.
- Graduates seeking radiography employment are employed.
- Employers indicate they would employ another program graduate.
- Alumni indicate they were adequately prepared to perform all of the required job-tasks.

## Contacts & Communications

### Address

Radiologic Technology Education  
University of Iowa Health Care  
Medical Center University  
200 Hawkins Drive C725 GH  
Iowa City, IA 52242

### Absence Line Contact Number

(319) 356-0532

### Telephone Numbers – (319) area code

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#### Director, Radiologic Technology Education

Holly Bonfig-Becker (319) 356-4332

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#### Office of Student Affairs

Jenny Maiers	(319) 353-9110
Kelley Kirby	(319) 384-7273

#### Program Directors, Radiation Sciences

Stephanie Ellingson	(319) 356-4871
Jared Stiles	(319) 356-8286
Jay Smith	(319) 356-2954

## Clinical Locations

### Medical Center University (MCU)

Emergency Treatment Center (ETC)	(319) 356-3657
Fluoroscopy	(319) 356-3356
General Diagnostic (GORP)	(319) 356-3359
Pediatrics	(319) 356-1957
Breast Imaging	(319) 356-1245
Cardiac Cath	(319) 356-2722
CT Command Center 1	(319) 384-6147, (319) 384-6148
CT SFCH	(319) 358-5011
Interventional	(319) 356-7738
MRI Front Desk	(319) 356-2236
MRI Command Center	(319) 356-4566
MRI SFCH	(319) 358-5020

### Medical Center Downtown (MCD)

Brenda Elsbury	(319) 688-7269
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### Medical Center North Liberty (MCNL)

Denise White	(319) 485-0626
Andi Yeggy	(319) 495-0609
Radiology Front Desk	(319) 485-0888
General Diagnostic (GERPP)	(319) 485-0376, (319) 485-0846
Fluoroscopy	(319) 485-0884
Ortho – 4 <sup>th</sup> Floor	(319) 485-0495
Ortho – 5 <sup>th</sup> Floor	(319) 485-0498
Sports Medicine	(319) 485-0495
CT Command	(319) 485-0685
MRI Command	(319) 485-0931

### UI Health Care – Community Clinics

Iowa River Landing (IRL)	(319) 467-2000
Iowa River Landing East	(319) 467-2000
Holiday Road – Urgent Care	(319) 467-7150
Scott Boulevard – Urgent Care	(319) 467-6789

## Accreditation

The Radiography Program is accredited by the:

Joint Review Committee on Education in Radiologic Technology (JRCERT)

20 N. Wacker Drive, Suite 2850

Chicago, IL 60606-3182

Phone: (312) 704-5300

Web: [JRCERT | Joint Review Committee on Education in Radiologic Technology](http://www.jrcert.org)

Email: [mail@jrcert.org](mailto:mail@jrcert.org).

**The Program was awarded the maximum accreditation period of 8 years on August 29, 2018.**

1. In order to maintain this accreditation, the Program must strictly follow the Standards for an Accredited Educational Program in Radiologic Sciences (Appendix E), which is published by the JRCERT, 20 N. Wacker Drive, Suite 2850, Chicago, IL, 60606-3182 (312)704-5300, [www.jrcert.org](http://www.jrcert.org), [mail@jrcert.org](mailto:mail@jrcert.org).
  - Students have the right to file a complaint if any of the Standards have been violated by the Program.
2. All allegations about non-compliance with JRCERT Standards will be handled in the following manner:
  - An allegation is to be submitted in writing to the Program Director within thirty (30) days of the date of non-compliance or when the student knew of the alleged violation. The written allegation shall specify the Standard claimed to have been violated and a brief summation of the underlying facts surrounding the violation.
  - The Program will investigate any allegation within thirty (30) days of the date the complaint was submitted. In the course of each investigation, the Program will consult directly with the Radiation Sciences Degree Administrator. The Program will then forward the written complaint to the Promotions committee within thirty (30) days of completion of investigation.
3. A complete copy of the current JRCERT Accreditation Standards\* for Radiography can be found at: <https://www.jrcert.org/jrcert-standards/>

\*Standards are available in PDF or Flipbook form

## ARRT Examination Requirements

The purpose of ARRT certification and registration in Radiography is to recognize individuals who are qualified to perform the role of a radiographer. To earn ARRT certification and registration as a radiographer requires pursuit of the primary eligibility pathway. This pathway includes completion of the ARRT prescribed components:

1. Education Requirement
2. Ethics Requirement
3. Examination Requirement

Specifics for ARRT credentialing can be found at their site:

- [Home - ARRT](#)

Specifics for each component can be found:

1. Education Requirements:
  - [Education Requirements Primary - ARRT](#)
2. Ethics Requirements\*:
  - [Ethics Requirements - ARRT](#)
3. Examination Requirements:
  - [Examination Requirement - ARRT](#)

\*The ARRT requires that certified radiographers and persons applying for certification demonstrate ethics and possess high moral standards. These requirements are governed by the [ARRT Standard of Ethics](#). When applying for certification you must answer [Ethics Questions](#) to identify potential ethics violations. If you have concerns about a potential ethics violation, students may request an [Ethics Review Pre-Application](#).

## Attestations

### Policy

To remain in good program standing, students must attend specified orientations and annual reviews/trainings and submit their associated attestations. These attestations include:

#### **New Student Attestations:**

1. ARRT Pre-Application Review
2. RT Student Handbook Review Waiver
3. MRI Health Screening
4. MRI Metal Waiver
5. Photo Release Waiver
6. RadSci Policies & Procedures Manual Waiver
7. Recommendation Release
8. Radiation Safety Review

#### **Annual Attestations:**

1. Background Disclosure
2. RadSci Policies & Procedures Manual Waiver
3. RT Student Handbook Review Waiver
4. MRI Health Screening
5. Recommendation Release
6. Radiation Safety Review

### Procedure

1. Students will attend the new student orientation or annual policy and procedure review in the first week of Fall semester.
2. Students will review the Radiation Safety Annual Review in the Compliances module on the Rad Sci Student Resource Center ICON course site in the first week of Fall semester.
3. Students must submit their attestations associated with the identified items above, in e\*Value, by the following Monday.
4. Students who fail to submit their attestations by the deadline will not attend their clinical assignments until their attestations have been submitted.
5. Students who are absent from their clinical assignment due to violation of the Attestation policy will be subject to all policies for Clinical Attendance & Clinical Absence Hours. See the Degree manual.
6. Students with habitual violation of the Attestation policy will be subject to the Judicial Process. See the Degree manual.

## Clinical Competency

### Policy

The purpose of the clinical competency process/assessment is to verify comprehensive student accuracy of exam process, procedure, and technical skill required for patient care, medical imaging, and radiographic procedures. Verified competency is required by the American Registry of Radiologic Technologists (ARRT) and demonstrates proficiency in exams. ARRT Clinical Competency requirements can be found at <https://www.arrt.org/pages/earn-arrt-credentials/credential-options/radiography>.

### Procedure

1. Students are required to follow the steps prescribed in the Procedure to Obtain a Clinical Competency chart in this handbook. Failure to do so will likely result in the invalidation of a competency.
2. Clinical competency exams are evaluated as pass or repeat. If you have not met all the requirements to successfully pass the exam, you will be required to repeat the exam on a later date.
3. Prior to attempting a clinical competency exam, the student must obtain a confirmed signature. All practice attempts and signature attempts are to be made under the direct supervision of an ARRT certified radiographer. See the Student Supervision policy in this handbook.
4. The student must make every attempt possible to obtain the required signatures and competency exams on patients before requesting simulation. See Competency-Simulation policy in this handbook.
5. If an ARRT certified radiographer is not available to perform the competency, the student is to email their advisor the information about the exam. Include date, time, and position/projection. This may be used in consideration if the student does not meet the signature and competency clinical requirements for that semester only. The student will still need to complete this requirement before graduation.
6. Students cannot obtain a signature and competency on the same day for mandatory comps or elective imaging procedures.
7. Students **must** show a confirmed exam signature to the ARRT certified radiographer when asking to complete a competency exam. Failure to do so will result in automatic repeat of the competency on a later date.
8. Clinical competency forms must be sent to clinical staff in e\*Value for both pass and repeat exams.
9. Case logs submitted for competencies must match the stated ARRT and Program requirements. Exams that vary or are submitted in error will be removed from student record and must be repeated on a later date.
10. Students must meet the outlined competency completion schedule located in the RT Clinical Internship syllabus. Failure to do so will result in a competency category, RT

Clinical Internship grade reduction by 1 grade level for every 2 missing requirements. I.e., 1-2 requirements missing = 1 grade level (A to B) reduction.

11. ARRT minimum clinical competency requirements must be completed by 4:30P the last day of a student's RT Clinical Internship V. Students who do not complete the ARRT minimum clinical competency requirements will receive the competency grade reduction outlined in this policy and must complete requirements as follows:
  - a. Students may volunteer time in clinic to complete their competencies prior to the end of semester deadline.
    - i. Volunteer time must be pre-approved and scheduled with the Clinical Coordinator.
  - b. Graduates: Must return following commencement to obtain all missing competency requirements. The clinical internship grade will remain an "I" incomplete, until these requirements are met.
  - c. Multi-modality students: Must return to clinic during the break between semesters to obtain all missing competency requirements. The clinical internship grade will remain an "I" incomplete, until these requirements are met. Students may not register for the sequential clinical internship until this "I" is resolved. Students not registered for their clinical internship may not attend and are subject to the clinical absence hour policies found in the Degree Manual.
  - d. All students: May opt to apply the competency grade deduction prior to the last day of the semester and then must simulate remaining exams prior to the end of the semester.
    - i. Only exams identified as simulatable may be simulated.
    - ii. No more than 10 exams total may be simulated.
    - iii. Students may not earn less than a C- for their Clinical Internship final grade.
    - iv. Students who earn a  $\leq$  C- will be subject to the Academic Standards and Probationary policies in the Degree Manual.
12. Competency and signature requirements may be completed during assigned clinical rotation dates and times only. Students will not be allowed to leave their assigned clinical area to complete competency or signature requirements in another clinical area until the last two weeks (weeks 17 & 18) of Clinical Internship V. Exceptions to this will be granted only under extraordinary circumstances and will be reviewed on a case-by-case basis by the RT+ Program Director and RT Clinical Coordinator.
13. Students who submit falsified case log records, attempt to submit falsified case log records, or engage in any deceitful behavior associated with obtaining or submitting a case log record will be subject to the Judicial Process. See Degree manual.
14. Students who violate the Procedure to Obtain a Clinical Competency policy will be subject to the Judicial Process. See Degree manual.
15. Students with multiple Clinical Competency policy violations will be subject to the Judicial Process. See degree manual.

### Procedure to Obtain a Clinical Competency

Step	Activity
1. Classroom/Didactic	Instruction: positioning and analysis course exams
2. Laboratory	Simulate positioning with instruction
3. Laboratory Competency	Simulate positioning with assessment. <b>(Case Log verification in E*Value required)</b>
4. Clinical Participation & Exam Practice	<p>Under direct supervision, students will observe and assist registered radiographers with exams during clinical rotations.</p> <p>Students must attempt practice exams learned in class with a registered radiographer directly supervising prior to attempting to obtain a clinical signature or competency.</p>
5. Clinical Signature	<p>Students must be directly supervised by a registered radiographer when attempting to obtain a clinical signature.</p> <p>The student must notify the radiographer they wish to attempt a signature prior to the start of the exam.</p> <p>The student must perform the majority of the examination with minimal assistance. This includes 100% of the patient positioning and 100% of the equipment operation. <b>(Case Log verification in E*Value required)</b></p>
6. Clinical Competency	<p>Students must demonstrate 100% accuracy of positioning and exam requirements with minimal assistance to obtain a competency.</p> <p>The radiographer assessing the clinical competency cannot offer any assistance with positioning, equipment operation, or image analysis in the procedure. <b>(Case Log verification in E*Value required).</b></p>

## Competency - Simulation

### Policy

Simulation of a clinical competency must be done on a live human being using the same level of cognitive, psychomotor, and affective skills as required for performing the procedure on a patient. Simulation must meet the same criteria as competencies demonstrated on patients and must be performed under the direct observation of an ARRT certified technologist of Radiography, RT(R).

### Procedure

1. Students may simulate no more than ten (10) competency exams including mandatory competencies and elective imaging procedures.
2. Simulated exams will not be performed before Week 14 of the Spring semester in which students are enrolled in Clinical Internship V.
3. Some clinical competencies are not simulatable according to ARRT standards.
4. Some clinical competencies are not simulatable according to Program standards based on exam exposure and volume.
5. Clinical competencies that are not designated as simulatable by the Program must be done on a patient in the clinic.
6. See Competency Simulatable Exams chart in this handbook for a list of simulatable exams in the Program.
7. Exams may only be simulated to meet the ARRT certification minimum requirements. I.e., Elective Imaging Procedures may not be simulated beyond the ARRT required 15 minimum.

**Competency - Simulatable Exams**

<b>Position/Projection</b>	<b>Mandatory or Elective</b>
Ribs	Mandatory
Sternum	Elective
Chest Lateral Decubitus	Elective
Upper Airway (Soft Tissue Neck)	Elective
SC Joints	Elective
Scapula	Elective
AC Joints	Elective
Toes	Elective
Skull	Elective
Facial Bones	Elective
Mandible	Elective
TMJ	Elective
Nasal Bones	Elective
Orbits	Elective
Paranasal Sinus	Elective
Sacrum and/or Coccyx	Elective
SI Joints	Elective
Abdomen Decubitus	Elective

## Clinical Evaluations

### Policy

Clinical performance evaluations are completed each rotation by clinical staff on student performance. Aggregate data from the semester's clinical performance evaluations will be used to calculate the student's clinical internship course final grade. Evaluations are assigned and completed through e\*Value.

### Procedure

1. Clinical performance evaluations will be generated in e\*Value near the end of each rotation.
2. Students will complete their WDYWW form in e\*Value.
3. Students must send an evaluation to **ALL** staff who directly and indirectly supervised their clinical internship activities.
4. Students are required to send evaluations to a minimum of two (2) clinical staff per rotation.  
**It is strongly recommended they send more.**
5. Students who send an unacceptably low number of evaluations in a semester will be subject to the Judicial Process. See Degree manual.
6. Students who violate the clinical evaluations policy and procedure will be subject to the Judicial Process. See Degree manual.

## Clinical Internship Grading

### Policy

The final Clinical Internship grade is comprised of multiple, varying criteria each semester and is assessed as designated in the clinical internship grading scale found in the appendices of this handbook. The varied components of each semester are identified in the RT Clinical Internships Syllabus. Each component carries equal weight in its designated semester. Final clinical internship grade calculation also includes adherence to program policy and procedure.

### Procedure

1. Midsemester clinical internship grade evaluations will be generated and completed (by a student's clinical advisor) in e\*Value near the midpoint of each semester.
2. Final clinical internship grade evaluations will be generated and completed (by a student's clinical advisor) in e\*Value at the end of each semester.
3. Final grades will be calculated according to the components identified for that semester in the RT Clinical Internship syllabus and the student's adherence to policy and procedure.
4. Students who receive multiple documentations, counseling sessions, or evaluation comments depicting poor behavior and/or repetition of poor behaviors may have their final Clinical Internship grade reduced by at least one grade level (i.e., A to B).
5. Students must earn a C or higher in each individual component of the final internship grade.
6. If a student earns below a C in an individual component of their clinical internship grade, they will receive an F for that component of their clinical internship grade.
7. If a student fails an individual component of the clinical internship's semester grading criteria, they will be subject to the Academic Standards policy. See Degree manual.
8. If a student receives/chooses a final Clinical Internship grade reduction due to negative clinical absence hour balance, this reduction will be applied to an RSRT Clinical Internship only. Negative absence hour deductions will not be applied to modality internships (RSBI, RSCI, RSCT, or RSMR). See Clinical Absence Hour policies in the Degree manual.
9. Students found to have unacceptably low adherence to program policy and procedure in a semester may also be subject to the Judicial Process. See Degree manual.

## Clinical Objectives

### Policy

Objectives and other activities are assigned to each clinical rotation and clinical assignment. Clinical objectives verify student engagement and participation in their clinical experience and document proficiency in clinical rotations.

### Procedure

1. All clinical objectives must be completed prior to graduation for successful program completion.
2. If a student fails to complete any one set of clinical objectives prior to graduation, they must return to clinic and complete the objectives prior to Program Director ARRT Program Completion verification.
3. Clinical objectives are to be completed during the rotation to which they are assigned and must be completed in sequential order. They cannot be completed prior to the associated rotation.
4. If a student is absent for an entire clinical rotation, they will be required to schedule make-up dates for this rotation (minimum 8 hours). Clinical objectives will be completed during this make-up time.
5. Clinical objectives must be completed/submitted to grader in e\*Value by the end of the last day of the semester.
6. Clinical objectives that are not completed/submitted to grader in e\*Value by the end of the last day of the semester will result in a grade of 0 (zero). These objectives must still be completed and turned in prior to graduation.
7. Any student receiving a graded F on an objective will be required to complete remedial work. Remedial work assigned will be determined by the Program Director or RT Clinical Coordinator.
8. Students who submit falsified clinical objectives, attempt to submit falsified clinical objectives, or engage in any deceitful behavior associated with completing or submitting a clinical objective will be subject to the Judicial Process. See Degree manual.
9. Students with multiple violations of the Clinical Objectives policy will be subject to the Judicial Process. See Degree manual.

## Clinical Schedule and Obligations

### Policy

Students are assigned clinical rotations that offer educationally valid clinical experience on an equitable basis. Clinical rotations are created that provide a wide range of procedures for competency and include mobile, surgical, and trauma examinations.

### Procedure

1. Students' clinical involvement will not exceed ten (10) hours per day.
2. All assigned clinical hours include a 30-minute lunch break. Time of lunch break is to be assigned by supervising clinical staff.
3. Lunch break is to be taken (i.e., started) between 11:00A and 12:30P. If a lunch break is assigned outside of this time frame, the student is to contact program staff immediately.
4. Assigned clinical hours for rotations are found on the student schedules contained in e\*Value. Clinical days and hours vary by clinical assignment.
5. Clinical assignments are located at a variety of health care sites. Students are responsible for their own transportation and parking. Locations are listed in Appendix B: Clinical Sites and are subject to change.
6. Students who are not able to attend clinical assignments due to transportation issues must notify the Program Director and RT Clinical Coordinator immediately. Inability to attend assigned rotations may delay or halt student progress in the program.
7. Varied clinical days and hours include day, evening, overnight, and weekend.
8. Students attending make-up clinical hours may not complete their make-up hours at the Iowa River Landing or Iowa River Landing East.
9. Students attending make-up clinical hours must be present for a minimum of 7 of every 8 scheduled hours. I.e., students cannot be sent home early by clinical staff until they have been present for a minimum of 7 of 8 scheduled hours (e.g., students who clock into make-up hours at 8:00A cannot be sent home prior to 3:30P).
10. Students are not assigned to clinical settings on holidays that are observed by the University. See Attendance policy in the Degree manual.
11. Students must be able to fulfill the Program Technical Standards (see Degree manual) to participate in clinical internships. If students are unable to fulfill these standards, they will be subject to the Clinical Attendance and Clinical Absence Hour policies. See Degree manual.

## **Judicial Procedure for Disregard of Student Supervision Policies**

### **Policy**

Student supervision policies are based on the JRCERT standard regarding student health and safety. Students are required to know the policies regarding Student Supervision and are required to adhere to them. If a student is found to be in violation of supervisory policies, disciplinary action taken by program staff will be as outlined below.

**There are no exceptions to the direct or indirect supervision policy.**

### **Procedure**

1. Students found in violation of the supervision policy, will be immediately placed on programmatic probation for the duration of their enrollment in the program.
2. Second observed/reported violations of the supervision policies will result in immediate student suspension from all program activities, including didactic, lab, and clinical internship courses, pending review of the case by the Radiologic Technology Education Program Director.
3. Students found in second violation of the supervision policy will likely be dismissed from the program.

## Lead Markers

### Policy

Each student will be issued lead markers to be used when imaging patients during clinical learning. Markers are personalized with numbers and letters used to identify the student. Students who have lost, misplaced, or forgotten their marker set may **not** use markers belonging to another student or staff and must follow the procedures outlined below:

### Procedure

1. If the student loses their markers or is found in the clinical setting without markers, they will be required to purchase new markers or leave to retrieve them.
  - Students who leave the clinical assignment to retrieve markers will be subject to the Clinical Attendance & Clinical Absence Hour policies. See Degree Manual.
2. Markers can be purchased from the RT Clinical Coordinator (I.O.U.s are allowed). The replacement costs are:
  - \$2.00 for each R or L and arrow
  - \$1.00 for small numbers and letters
  - \$5.00 for SUPINE and XTABLE markers
  - \$4.00 for PORT
3. Students found using markers that are not their own will be subject to the Judicial Process. See Degree manual.

## Lost, Late, or Missing Dosimeter

### Policy

Each student will be issued radiation dosimeters that must be worn for clinical internships in all clinical rotations. It is the student's responsibility to change out their dosimeter and return the prior month's dosimeter to the University Environmental Health and Safety (EHS) Office. Missing dosimeters must be reported to the RT Clinical Coordinator immediately.

### Procedure

1. Dosimeters must be changed out each month and returned via enclosed campus mail envelope to the University Environmental Health and Safety Office.
2. Dosimeters must be **received** by the EHS Office by the 10<sup>th</sup> day of each month.
3. Any dosimeter not **received** by the EHS Office by the 10<sup>th</sup> day of the month will be identified as late.
4. Three (3) late dosimeters in any twelve (12) month period will incur a charge of \$30 to the student.
5. Students and Program Directors will be notified by the EHS Office via email when a dosimeter is either late or missing.
6. Students and Program Directors will be notified by the EHS Office via email when a late or missing dosimeter charge has been incurred.
7. Students must pay the program office by check for a late or missing dosimeter charge within 30 days of the email notifications of the incurred charge.
  - a. This can be paid in the form of a personal, cashier, or bank check.
  - b. The check will be made out to the Radiologic Technology Program.
  - c. The check must be hand delivered to the Administrative Services Coordinator, C725-GH.
8. Student ARRT program verification will not be approved until all program debts have been paid. Students without ARRT program verification cannot be certified by the ARRT.
9. Students with multiple violations of the Lost, Late, or Missing Dosimeter policy may be subject to the Judicial Process. See Degree manual.

## **Magnetic Resonance Imaging (MRI) Safety**

### **Policy**

Students must adhere to all MRI safety policies and procedures required by University of Iowa Health Care, the University of Iowa Department of Radiology, the University of Iowa Radiation Sciences and Radiologic Technology Education Programs, and the JRCERT.

### **Procedure**

1. Students will be educated on MRI safety during program orientation and the program required MRI Safety compliance course.
  - a. Completion of this course is required initially upon acceptance, and annually thereafter.
2. Students will complete the MRI Health Screening form in e\*Value annually.
3. Students must notify the Program Director, the RT Clinical Coordinator, and the MRI Clinical Coordinator at any point their responses on the form have changed.
4. Any questions regarding the screening process and/or answers provided will be discussed with a certified and registered MRI technologist and/or MRSO prior to a student's participation in MRI rotations.
5. Failure to follow the MRI Safety policy will result in removal from clinical internship rotations.
6. Time removed from clinical rotations will be subject to the Clinical Attendance & Clinical Absence Hour policies. See Degree manual.
7. Students with multiple MRI Safety policy violations will be subject to the Judicial Process. See Degree manual.

## Policy Awareness Form

### Policy

This form will serve as verification that the student has read and understands the Radiologic Technology Education Student Handbook for the Radiation Sciences Radiologic Technology Program at the University of Iowa. Completing this form is an agreement to abide by the policies and procedures outlined in the Student Handbook as well as all policies and procedures referenced in the Preface. It serves as acknowledgement of the responsibility to adhere to the policies and procedures of the University of Iowa, University of Iowa Health Care, University of Iowa Department of Radiology, University of Iowa Radiation Sciences bachelor's degree, and the Radiation Sciences Radiologic Technology Education Program. Policies, procedures, and student handbooks can be found on the Rad Sci Rad Tech: Student Resource Center ICON course site and Program website.

### Procedure

1. Policies and procedures for the Bachelor of Science, Radiation Sciences degree program and the Radiologic Technology Education program will be reviewed annually at student orientation in Fall semester.
2. The policy awareness form, titled Handbook Review Waiver, will be completed annually in e\*Value.
3. Students are required to complete the Policies and Procedures quiz each semester in the clinical internship ICON course sites.
  - Students must receive an 80% or higher for successful completion.
4. Failure to successfully complete the Policies and Procedures quiz will result in removal from clinical internship rotations for policy and procedure review with the Program Director.
5. Time absent from clinical rotations for review attendance will be subject to the Clinical Attendance & Clinical Absence Hour policies. See Degree manual.
6. Students with multiple failed Policy and Procedures quizzes will be subject to the Judicial Process. See Degree manual.

## Radiation Safety Guidelines

1. Students will be supervised and instructed in a manner that will follow the As Low As Reasonably Achievable (ALARA) safety principle.
2. Students will follow the Occupational Dose Limits for Adults as set forth by the University of Iowa Environmental Health & Safety Office (EHS).
3. The student must be 18 years of age or older to take part in clinical rotations that require working with sources of ionizing radiation.
4. Students who are in the procedure room during x-ray fluoroscopy are required by regulation to wear a protective apron (0.25 mm lead equivalent), a thyroid shield, and a dosimeter badge.
5. Students are prohibited from holding an image receptor, positioning aid, or a patient during an imaging exam exposure. **There are no exceptions to this.**
6. The program uses the radiation monitoring service provided by the University of Iowa EHS.
7. The student will be issued one P8 – collar whole-body dosimeter. This dosimeter is to be worn at the collar level, external to the lead apron, and thyroid shield if one is used.
8. The student will be issued a new badge each month. This badge will be placed in the student's mailbox. Each student is responsible for returning the previous month's dosimeter badge to the EHS by the 10th of the following month.
9. Radiation Exposure Reports for the previous month are sent to students via email and posted in the student lounge for review within 30 days of generation.
7. Dosimetry badges must be worn during all clinical practice and labs. Any student without their dosimeter will not be allowed to attend clinic and will be subject to Clinical Attendance & Clinical Absence Hour policies. See Degree manual.
10. If a student has a lost or missing badge, they must report it missing to the RT Clinical Coordinator immediately. See Lost, Late, or Missing Dosimeter policy in this handbook.
11. Any student who is personally going through diagnostic or therapeutic procedures and/or treatments should not wear their dosimeter during these personal exams.
12. The dosimeter badge is the property of the University of Iowa and must be returned prior to graduation. Failure to do so will result in a delay of final ARRT examination verification by the Program Director.
13. If a student is dismissed or withdraws from the Program, they must turn in their badge to the RT Clinical Coordinator before drop authorization will be issued.
14. Tampering with the radiation badge or exposing it to ionizing radiation to cause a false positive reading shall be considered a serious offense and will result in immediate dismissal from the Program.
15. The annual student's dosimetry badge reading will not exceed the following NRC protection recommendation (see following chart):

<b>Annual Maximum Permissible Dose Limits</b>		
<b>mrem</b>	<b>rem</b>	
5000	5	Whole Body Deep Dose Equivalent (Head, trunk, active blood-forming organs & reproductive organs)
50,000	50	Whole Body Shallow Dose Equivalent (Skin of the whole body) and Extremities (Hands, forearm, feet & ankles)
50000	50	Lens of Eye Dose Equivalent

Notification and investigation levels for occupational exposure to radiation by the EHS Office are as follows:

- Action Level I: EHS contacts individuals and their supervisor/department be presented with cumulative quarterly exposure exceeds any of the action levels listed below.
- Action Level II: In addition to “Level I” notifications, EHS requires the completion of a questionnaire for “Action Level II” exposures and may include a meeting with the student and their supervisor to discuss the individual’s exposure and potential actions.

<b>ALARA I</b>	<b>ALARA Level II</b>	
200 mrem/month	400 mrem/month	Whole Body Deep Dose Equivalent (Head, trunk, active blood-forming organs & reproductive organs)
2000 mrem/month	4000 mrem/month	Whole Body Shallow Dose Equivalent (Skin of the whole body) and Extremities (Hands, forearm, feet & ankles)
600 mrem/month	1200 mrem/month	Lens of Eye Dose Equivalent

## Radiologic Technology Program Track Transfer

Track transfers are available to students who meet the qualifications for the desired track and transfer deadlines. Students wishing to transfer must follow the procedures outlined in the policy.

### RT Multi-Credential Track to RT Track Transfer

#### Policy

Students currently enrolled in a multi-credential (MC) track may transfer into the radiologic technology (RT) track if eligible and approved. The RT track **does not** include a post-primary credential.

#### Procedure

Students interested in transfer must complete the following:

1. Meet with their Radiation Sciences Academic Advisor to determine class and credit eligibility.
2. Meet with the RT+ Program Director to discuss space availability.
3. Request for transfer approval, via email, to the following:
  - Radiation Sciences Academic Advisor
  - Radiologic Technology Program Director
4. The transfer process described above must be completed by the end of the RSRT:2325 RT Clinical Internship III.
5. Students in poor academic or clinical standing may be denied approval.

### RT Multi-Credential Track to RT Multi-Credential Track Transfer

#### Policy

Students currently enrolled in a multi-credential (MC) track may transfer into a different MC track if an opening exists, the student is eligible, and the transfer is approved.

#### Procedure

Students interested in transfer must complete the following:

1. Meet with their Radiation Sciences Academic Advisor to determine class and credit eligibility.
2. Meet with the RT+ Program Director to discuss space availability.
3. Request for transfer approval, via email, to the following:
  - Radiation Sciences Academic Advisor
  - Radiologic Technology Program Director
4. The transfer process described above must be completed by the end of the RSRT:3125 RT Clinical Internship IV.
5. Students in poor academic or clinical standing may be denied approval.

## RT Track to RT Multi-Credential Track Transfer

### Policy

Students currently enrolled in the radiologic technology (RT) track may transfer into a multi-credential (MC) track if an opening exists, the student is eligible, and the transfer is approved.

### Procedure

Students interested in transfer must complete the following:

1. Meet with their Radiation Sciences Academic Advisor to determine class and credit eligibility.
2. Meet with the RT+ Program Director to discuss space availability.
3. Request for transfer approval, via email, to the following:
  - Radiation Sciences Academic Advisor
  - Radiologic Technology Program Director
4. The transfer process described above must be completed by the end of the RSRT:3125 RT Clinical Internship IV.
5. Students in poor academic or clinical standing may be denied approval.

## Remedial Exam

### Policy

The purpose of the clinical exam assessment is to verify comprehensive student accuracy of exam process, procedure, and technical skill required for patient care, medical imaging, and radiographic procedures. Students who are found to be performing radiographic exams incorrectly after any verified form of exam competency (including signature or competency) can be assigned remedial exams.

### Procedure

1. A remedial exam may be assigned to a student if an educator or staff technologist observes a student performing an imaging exam incorrectly after the student has completed any verified form of competency for that exam.
2. A remedial exam may be assigned the same day as a student's competency if necessary.
3. The staff will assign the remedial exam assignment in e\*Value.
4. The student will be governed by direct supervision for the exam until the remedial assignment has been satisfied. See Student Supervision policy in this handbook.
5. To successfully satisfy a remedial assignment, students will need to obtain:
  - a. Two (2) additional signatures for the exam.
  - b. One (1) additional competency for the exam (when applicable).
6. The student will record these additional signature and competency exams in e\*Value.
7. Remedial exams will be counted cumulatively throughout the student's enrollment in the program.
8. For every three (3) remedial exams received, the RT Clinical Internship final grade will be lowered by one grade level (i.e., A to B).
9. A student will not graduate until 100% of the competency and remedial exam requirements are completed.

## Retention Assessment

### Policy

Retention assessment competencies are performed as part of the program's ongoing quality assurance and outcome assessment evaluation for high quality education, high quality patient care, programmatic accreditation, and process improvement. Students will be randomly evaluated for retention of exam skills during retention assessment exams.

### Procedure

1. Assessments are completed annually for the duration of the program.
2. Assessments are supervised by a Radiation Sciences Educator in the clinical setting.
3. Assessments are completed only on exams the student has logged a successful competency exam on.
4. Inadequate performance during a retention assessment will result in a failed assessment.
5. Inadequate performance during a retention assessment may result in the assignment of a remedial competency.
6. Retention assessment competency exams will be completed during the clinical internships as follows:
  - a. Three (3) routine exams to be completed by the end of RT Clinical Internship III.
  - b. Three (3) routine and one (1) trauma exams to be completed by end of RT Clinical Internship V.
  - c. Three (3) routine and two (2) trauma exams to be completed by the end of RT Clinical Internship VIII (when applicable).

## Student Supervision

### Policy:

Students in the RT+ Program are required to adhere to Program policy regarding supervision in the clinical setting. **There are no exceptions to the student supervision policy.** The RT+ Program adheres to the JRCERT's definitions of direct and indirect supervision.

**Direct supervision** is defined as student supervision by a qualified radiographer who:

- Reviews the procedure in relation to the student's achievement.
- Evaluates the condition of the patient in relation to the student's knowledge.
- Is physically present during the conduct of the procedure.
- Reviews and approves the procedure and/or image before the patient is dismissed and images are archived.

**Indirect supervision** is defined as student supervision by a qualified radiographer who:

- Is immediately available to assist students regardless of the level of student achievement (immediately available is interpreted as the presence of a qualified radiographer adjacent to the room or location where a radiographic procedure is being performed).
- Reviews and approves the procedure and/or image before the patient is dismissed.

### Procedure

1. Students must be directly supervised until successful competency is achieved and logged in eValue. Competency is achieved when they have successfully passed the competency for a specific exam/view.
2. Students must be directly supervised during all surgical and all mobile procedures, including mobile fluoroscopy, regardless of the level of competency.
3. The repeat of all unsatisfactory images must be completed under direct supervision, regardless of the level of competency. If a repeat examination is necessary, the qualified radiographer will check the position and technique before the exposure is made.
4. Once students have achieved competency, they may work under indirect supervision for applicable exams.
5. Students found to be in violation of the Student Supervision policy are subject to the Judicial Process for Disregard of Student Supervision Policies in this manual.

**\*Students operating in an employee role cannot supervise students operating in their student role.**

## Student Volunteer Opportunities

### Policy:

Students may participate in various program related activities. These activities are voluntary. Opportunities for volunteer activity listed below are subject to change.

### Procedure:

1. The clinical coordinator or program designee will meet with the students to present volunteer opportunities available to them for the remainder of their time in the program.
2. Activities include, but are not limited to:
  - a. Job shadow escort
  - b. STEM/STEAM events
  - c. Introduction to Radiation Sciences course student panel
  - d. Career events
  - e. Staff appreciation events
  - f. Service events
  - g. Professional conference attendance
  - h. Professional conference presentations
  - i. Student mentorship
  - j. Prospective student recruitment events
3. Students who are interested in participating must notify the clinical coordinator to be added to the student volunteer list.
4. Students who volunteer will be notified by email when opportunities are available.
5. For activities with limited space, volunteers will be taken on a first come, first serve basis.
6. Students may not participate in volunteer activities if they:
  - a. Are negative clinical absence hours.
  - b. Received an F in any portion of their clinical internship grade the prior semester.
  - c. Have received more than one (1) policy violation in the current semester.
7. Students will be notified by the clinical coordinator if a volunteer activity earns clinical absence hours.
8. Any activity earning clinical absence hours outside of the student's assigned clinical time will be earned at a rate of 1:1.

## Appendix A: Clinical Sites

- UI Health Care Medical Center  
200 Hawkins Drive  
Iowa City, IA 52242
- UI Health Care Medical Center Downtown  
500 E. Market St.  
Iowa City, IA 52245
- UI Health Care Medical Center North Liberty  
701 West Forevergreen Rd.  
North Liberty, IA 52317
- UI Stead Family Children's Hospital  
200 Hawkins Dr.  
Iowa City, IA 52242
- UI Health Care Urgent Cares:
  - i. Scott Blvd: 3640 Middlebury Road, Iowa City, IA 52245
  - ii. Holiday Road: 2591 Holiday Rd, Coralville, IA 52241
  - iii. Cedar Rapids: 411 10<sup>th</sup> St. SE, Cedar Rapids, IA 52403
  - iv. Davenport: 2705 E. 53<sup>rd</sup> St., Davenport, IA 52807
  - v. Bettendorf: 865 Lincoln Rd. #400, Bettendorf, IA 52722
- UI Health Care Outpatient Facilities:
  - i. Sports Medicine: 2701 Prairie Meadow Dr., Iowa City, IA 52242
  - ii. Iowa River Landing Clinic: 105 East 9th Street, Coralville, IA 52241
  - iii. North Dodge Clinic: 1360 North Dodge St., Iowa City, IA 52245
- Iowa City VA Health Care System: 601 US-6 W, Iowa City, IA 52246

## **Appendix B: Program Administrative Information**

### **Organization of the Radiologic Technology Education Program**

#### **Administrative Director, Radiation Sciences**

Holly Bonfig-Becker, EdD, MA, RT(R)(M)

#### **Director, Radiologic Technology Education**

Holly Bonfig-Becker, EdD, MA, RT(R)(M)

#### **Clinical Coordinator, Radiologic Technology Education**

Lorie Gillitzer, BS, RT(R)(CT)(M)

#### **Radiation Sciences Educators, Radiologic Technology Education**

Travis Ehlinger, MEd, RT(R)(MR)

Jesse Brennan, BS, RT(R)(CT)

Mark Diller, BS, RT(R)(MR)

Hannah Fink-Flesburg, MHA, RT(R)(MR)

Caitlyn Nelson Prickett, BS, RT(R)

#### **Administrative Services Coordinator**

Laurie Calkins

## **Appendix D: Advisory Committee**

The University of Iowa's Carver College of Medicine sponsors the Program in cooperation with the Department of Radiology. Education is provided by the University of Iowa (UI) College of Medicine faculty in the Department of Radiology, at UI Health Care Medical Center University, UI Health Care Sports Medicine, UI Health Care Iowa River Landing, and UI Health Care Urgent Cares under the close guidance of licensed radiographers.

The program accepts a maximum of 27 students per cohort.

The educational experience includes didactic instruction, laboratory instruction, clinical instruction, and self-directed learning.

### **Vice President for Medical Affairs, Dean of the Carver College of Medicine**

Denise Jamieson, MD, MPH

### **Krabbenhoft Professor, Chair and DEO, Department of Radiology**

Bruno Policeni, MD, MBA

### **Vice Chair for Education, Department of Radiology**

D. Lee Bennett, MA, MBA, MD, FACR

### **Clinical Department Administrator, Department of Radiology**

Gregory Lehmann, MHA

### **Director, Radiologic Technology Education**

Holly Bonfig-Becker, EdD, MA, RT(R)(M)

### **Clinical Coordinator, Radiologic Technology Education**

Lorie Gillitzer, BS, RT(R)(CT)(M)

### **Administrative Director, Radiation Sciences**

Holly Bonfig-Becker, EdD, RT(R)(M)

### **Directors, Radiation Sciences Educational Programs**

Stephanie Ellingson, MS, RDMS, RDCS, RVT, RT(R)

Jennifer Maiers, MHA, RT(R)(CT)(VI)(QM)

Jared Stiles, MSL, RT(R)(T)

Holly Bonfig-Becker, EdD, RT(R)(M)

Jay Smith, MA, CNMT, RT(R)(N)

