

Student Handbook

University of Iowa Carver College of Medicine **Radiation Therapy Education Radiation Sciences**

2024 - 2025 Academic Year

Preface:

Students of the Radiation Therapy 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)]. 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 Radiation Therapy 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

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Mission Statement

The mission of the Radiation Therapy Program has as its goal the preparation of the individual student radiation therapist to assume duties as a member of the health care team of radiation therapist, radiation oncologist, nurse, and physicist. This health care team provides total quality care for each patient undergoing a prescribed course of treatment using ionizing radiation.

Goals & Learning Outcomes

Goal #1 Students will perform the responsibilities of a Radiation Therapist in a competent manner

- Administer radiation as prescribed by the physician
- Perform simulation as directed by the physician
- Safe and correct equipment utilization

Goal #2 Students will demonstrate effective communication skills

- Demonstrate effective patient contact and communication in the clinical setting
- Effectively communicate the components of a prescribed course of radiation therapy
- Students will use presentation skills

Goal #3 Students will demonstrate critical thinking skills

- Observe the clinical progress of the radiation oncology patient; use clinical decisionmaking skills
- Demonstrate ability to adapt and learn from new situations
- Properly employ accessory and immobilization equipment

Goal #4 Students will possess professionalism

- Students will demonstrate professional behavior
- Students will understand ethical behavior

Contact Information

Address

Radiation Therapy Education University of Iowa Health Care 200 Hawkins Drive C235 GH Iowa City, IA 52242-1099

Absence Line Contact Number

(319) 356-0532

Telephone Numbers - (319) area code unless stated otherwise

Program Director		Support Staff	
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Clinical Coordinat	or		
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Clinical Locations

Versa A	384-7321
Versa B	384-7322
Versa C	384-7323
CT/HDR	384-9764
Gamma	384-8429
MR-Linac	353-7447
MRI	384-9581
Nursing Workroom	356-2157
Front Desk	356-2253
HPCC Front Desk	356-1957
NCCC Front Desk	467-6789
Quad Cities Rad Onc	(563) 353-7461
JSCC Front Desk	(515) 467-8206
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Student Affairs

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Program Directors

Stephanie Ellingson (DMS)	356-4871
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Accreditation

The University of Iowa Carver College of Medicine's Radiation Therapy program is accredited by the

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Joint Review Committee on Education in Radiologic Technology 20 North Wacker Drive, Suite 2850 Chicago, IL 60606-3182 312-704-5300 Email: <u>mail@jrcert.org</u>

The program's current award is 8 years. General program accreditation information and the current accreditation award letter can be found <u>here</u>.

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

- 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, 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 Radiation Therapy can be found at: <u>https://www.jrcert.org/jrcert-standards/</u>

ARRT Examination Requirements

The purpose of ARRT certification and registration in Radiation Therapy is to recognize individuals who are qualified to perform the role of a radiation therapist. To earn ARRT certification and registration as a radiation therapist 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:

• <u>Home - ARRT</u>

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 radiation therapists and persons applying for certification demonstrate ethics and possess high moral standards. These requirements are governed by the <u>ARRT Standard of Ethics</u>. When applying for certification you must answer <u>Ethics Questions</u> to identify potential ethics violations. If you have concerns about a potential ethics violation, students may request an <u>Ethics Review Pre-Application</u>.

Attestations

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Policy

To remain in good program standing, students must attend specified orientation and annual reviews/trainings and submit their associated attestations. These attestations are located on the eValue home page and include:

New Student Attestations:

- 1. ARRT Pre-Application Review
- 2. Radiation Therapy Student Handbook Review Waiver
- 3. MRI Screening From
- 4. Photo Release Waiver (Media Consent & Release Form)
- 5. Degree Manual Waiver (Policy and Procedures Acknowledgement)
- 6. Release of Information (Media Consent & Release Form)
- 7. COVID-19 Vaccination History

Annual Attestations:

- 1. Background Check Disclosure
- 2. Degree Manual Waiver (Policy and Procedures Acknowledgement)
- 3. Radiation Therapy Student Handbook Review Waiver
- 4. COVID-19 Vaccination History

- 1. Students will attend the new student orientation or annual policy and procedure review before or during the first week of the Fall semester.
- 2. Students must submit their attestations associated with the identified items above in eValue by the due date.
- 3. Students who fail to submit their attestations by the deadline will not attend their clinical assignments until their attestations have been submitted.
- 4. 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).
- 5. Students with habitual violations of the Attestation policy will be subject to the Judicial Process (see the Degree Manual).

Clinical Internship Grading

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Policy

The final clinical internship grade is comprised of varying criteria. The components of each semester are identified in the Clinical Internship syllabus. Clinical internship grades are calculated according to the grading scale found in Appendix A of the Degree Manual. Final grade calculation also includes adherence to program policies and procedures via the performance appraisal – see Clinical Evaluations in this handbook.

- 1. Midsemester clinical internship grade evaluations will be generated and completed by the clinical coordinator in eValue near the midpoint of each semester.
- 2. Final clinical internship grade evaluations will be generated and completed by the clinical coordinator in eValue at the end of each semester.
- 3. Final grades will be calculated according to the components identified for that semester in the Clinical Internship syllabus and the student's adherence to the policies and procedures.
- 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 greater in each individual component of the final internship grade.
- 6. If a student earns below a C, they will receive an F for that component of their clinical internship grade.
- 7. If a student fails an individual component of the 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 the clinical internship grade. See Clinical Absence Hour policy 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.

Case Studies

Policy

The purpose of the case study is to emphasize accurate communication of the aspects of each patient's care and rationale of the treatment plan as perceived by the student. A case study must be completed on select exams before the competency – see competency list on eValue or ICON.

- 1. Students are required to follow the steps described in the Process to Obtain a Treatment Clinical Competency outlined in the clinical internship course on ICON.
- 2. Students are responsible for completing every applicable part of the case study. Each case study is worth 25 points. Points may be deducted based on the instructors understanding of the information contained in the case study. One-point deductions per question will result when there is missing, inadequate, or incorrect information.
 - a. Students should complete their case study using "traditional" field borders for the pathology found in their text.
- 3. Students will select the clinical coordinator as the grader.
- 4. Students must submit their case study in eValue **at least the day before** their competency. Students who submit their case study the day of the competency or later will receive a 10% deduction.
 - Example: A student lists an incorrect billing code and incorrect treatment field borders. Their score would be 23/25 or 92% (B, according to the clinical grading scale). If the student submitted after their competency, this would result in an additional 10% deduction = 82% (F grade).
- 5. If a student does not pass the clinical competency, the case study does NOT need to be redone for that site.

Clinical Competency

Policy

The purpose of the clinical competency assessment is to verify comprehensive student accuracy of the exam process, procedure, and technical skill required for patient care, imaging, and accurate delivery of therapeutic doses of radiation. Verified competency is required for program completion by the American Registry of Radiologic Technologists (ARRT); student must demonstrate proficiency in all procedures. ARRT Clinical Competency requirements can be found at https://www.arrt.org/pages/earn-arrt-credentials/credential-options/radiation-therapy.

*The competency procedure varies slightly based on the type of competency (Treatment, CT Simulation, Participatory/Simulated, Remedial, or Challenge). The "Procedure" below is consistent for every competency, the differences are detailed below in the specific type of competency. The "Process to Complete" each competency is detailed in the Clinical Internship course on ICON.

- 1. Two therapists will comp with the student. The secondary therapist observes and the primary therapist acts as a student and is instructed by the senior student on every task they would like them to complete.
- 2. The primary therapist completes the competency and must have at least one-year working experience at the facility employed. The secondary therapist can be any therapist.
- 3. Competencies are Pass/Repeat. Students completing competency without any omissions or errors will receive a score of 100%. Failure to complete any one of the line items on the form will constitute a repeat and the student will receive a score of 0%.
 - a. Students are only allowed two attempts per competency (first and second attempt). After two attempts, the student must first meet with the clinical coordinator to determine the reasons for failing and the options to complete the competency.
- 4. **Only two** repeated comp **sites** are allowed per semester. Students who do not pass more than two comps on their first attempt will be placed on probation. Additional failed competencies could result in program dismissal and will be carried over to the next semester's total of failed competencies.
 - a. Ex: A student did not pass 4 comps in their fall semester. They are placed on probation and potentially dismissed from the program. If allowed to continue, the two additional unpassed comps will be carried over to the spring semester's total. If the student fails to pass another competency, this could result in program dismissal.
- 5. Students who submit falsified clinical competencies, attempt to submit falsified clinical competencies, fails to follow the Process to Obtain a Clinical Competency, or engages in any deceitful behavior associated with obtaining or submitting a clinical competency will be subject to the Judicial Process (see Degree Manual).
- 6. Students with multiple Clinical Competency policy violations will be subject to the Judicial Process (see Degree Manual).

Treatment Procedure

- 1. Students are required to follow the steps described in the Process to Obtain a Treatment Clinical Competency outlined on the Clinical Internship course on ICON.
- 2. For a repeat competency, the exam must be completed and passed on the same patient with the same staff. If for some reason this is not possible, consult the clinical coordinator.

CT Simulation Procedure

- 1. Students are required to follow the steps described in the Process to Obtain a CT Simulation Clinical Competency outlined on the Clinical Internship course on ICON.
- 2. For a repeat competency, the exam must be completed and passed with the same staff. If for some reason this is not possible, consult the clinical coordinator.

Participatory/Simulated Procedure

- 1. Participatory competencies are low-volume, complex exams. Students can simulate participatory and treatment competencies at the end of semester V if the opportunity never arises on a real patient. The clinical coordinator will inform students when it's appropriate to begin simulating procedures. CT Simulation competencies cannot be simulated.
- 2. Students are required to follow the Clinical Competency Procedure in this handbook for Participatory/Simulated competencies.
- 3. Students are expected to know the entire procedure and describe basic concepts of the treatment.
- 4. Simulated exams should not exceed three treatment procedures.
- 5. Staff qualified to complete these include: therapists with 2+ years' experience, the clinical coordinator, or the program director.
- 6. Students will document the completion in eValue the same as a standard comp but select "Simulated" in the role selection at the bottom of the form.

Remedial Procedure

- 1. A remedial competency may be assigned if a staff member questions the student's knowledge or competence regarding the procedure after the student has passed the exam.
 - a. Example: A student passed a breast comp but later incorrectly sets another patient up for a breast treatment or does not check appropriate treatment settings. This would indicate that a remedial competency is needed.
- 2. A staff will notify the clinical coordinator of their concern, and a remedial competency may be enacted.
- 3. Students will not be able to practice a remedial competency, and these can be requested on a patient of the staff's choosing with no forewarning on a standard patient.
- 4. The staff will notify the student to send a competency form through Case Logs in eValue and selecting **"remedial"** in the role selection at the bottom of the form.
- 5. To successfully satisfy a remedial competency, students must pass the remedial competency with the same expectations as the initial competency.

- 6. The staff will record the remedial competency exam in eValue.
- 7. If a student fails a remedial competency, their grade for their initial competency will change, and they will have to re-demonstrate their competency on the exam.
- 8. Remedial competencies will be counted cumulatively throughout the student's enrollment in the program.
 - a. For every two remedial competencies received, the Clinical Internship final grade will be lowered by one grade level (i.e., A to A-).

Challenge Procedure

- 1. During Clinical Internship V, a staff member, from any rotation, will select one competency as a "Challenge Competency" of which the student has already proven competent.
- 2. The same rules apply as the remedial competency.
- 3. A competency form should be completed through Case Logs in eValue, selecting the Challenge comp instead of the treatment site and then selecting "performed" in the role selection at the bottom of the form.
 - a. For example, if the student completed their challenge competency on a brain patient, they must define which competency category it falls under (Brain: Primary or Brain: Metastatic).

Clinical Evaluations

Policy

Clinical 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 eValue. Types of evaluations include:

Rotation Evaluations are assigned to each clinical rotation and are completed by the student; it gives them the opportunity to anonymously evaluate the clinical rotation and staff. Scores and feedback are shared with the staff semesterly to identify areas of improvement throughout the clinical internships and to ensure students followed the Student Supervision policy.

Clinical Evaluations are sent to all staff the student trained with during their rotation by the student via the Rotation Evaluation in eValue. Clinical Evaluations support students' performance by helping them learn, critique their skills, enhance professionalism, patient care, and many other traits that make them valuable employees and team members.

Performance Appraisals are a way to evaluate the student's affective domain. This includes, but is not limited to, quality and quantity of work, communication, initiative, judgment, critical thinking, decision-making, patient care, altruism, reliability, responsibility, attitude, adaptability, relationships with others, honor, and integrity. Assessment tools include Clinical Evaluations and the Performance Appraisal form. Examples are provided in the Clinical Evaluation and Performance Appraisal Forms module in the Clinical Internship courses on ICON.

- 1. Students receive an email notification from eValue to complete a Rotation Evaluation approximately 3 days before the last day of their rotation.
- 2. Students evaluate the rotation by answering the questions on the form in eValue.
- 3. Students select all staff members they trained with to receive a Clinical Evaluation and one staff member to complete the rotation objectives, if assigned.
- 4. After staff complete the evaluations, students can review them in eValue.
- 5. Students will receive a Performance Appraisal from the course instructor that will be reviewed with the student at midterms. The final Performance Appraisal grade is given at the end of each semester.
- 6. If the student has concerns, they should first attempt to resolve the issue with the person involved. Lacking a satisfactory outcome, the student should address the concern with the program director. If still not satisfied, they should then follow the Grievance Process outlined in Degree Manual.

Clinical Objectives

Policy

Each clinical rotation has specific objectives and/or activities assigned. These clinical objectives ensure that students are engaged and participating in their clinical experiences. The difficulty of the objectives increases as students' progress through the program. They guide learning expectations and document the students' growth and proficiency in their knowledge and skills.

- 1. All clinical objectives must be completed before graduation for successful program completion see Clinical Internship ICON course for Process to Complete Clinical Objectives.
- 2. Clinical objectives are completed during the rotation to which they are assigned and must be completed in sequential order. They cannot be completed before the assigned rotation.
- 3. If a student attends their rotation but fails to complete the assigned objectives during the rotation, they are subject to a grade reduction.
 - a. If a student' absence resulted in the incompletion, students are required to schedule make-up time for objective completion.
 - b. It is the student's responsibility to contact the clinical coordinator by email to arrange a make-up time to complete objectives.
 - c. If the student fails to make-up their objectives within a two (2) week time frame, they will receive a zero for those objectives.
- 4. Any student receiving an F on an objective will be required to complete remedial work. Remedial work assigned will be determined by the Clinical Coordinator.
- 5. 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).
- 6. Students with habitual 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. The program provides all students with ample opportunity to participate with a wide range of technologies and procedures. Assigned clinical hours for rotations are found on the student schedules contained in eValue. Clinical days, hours, and location vary by rotation. Students are responsible for all costs associated with transportation, parking, and lodging.

*Affiliated clinical sites are approved by the JRCERT (<u>www.jrcert.org</u>) and their intent is to provide students with the clinical skills needed by professionals in the field. Current sites are in Appendix B. Clinical sites are subject to change.

- 1. Students are assigned to clinical rotations for 8 hours per day. Students cannot exceed 10 hours per day and 40 hours per week.
- 2. All students have an additional 30-minute lunch break. The time is dependent upon clinical schedule and is determined by the supervising clinical staff.
- 3. Students who are not able to attend clinical assignments due to transportation issues must notify the Program Director and Clinical Coordinator immediately. Inability to attend assigned rotations may delay or halt student progress in the program.
- 4. Students are not allowed to move rotations for severe weather or any other reason.
- 5. Students must meet the Immunization & Health Requirements of each location they are assigned see Degree Manual.
- 6. Students must be able to fulfill the Technical Standards to participate in clinical internships see Degree Manual.
- 7. If students do not meet the site requirements or are unable to fulfill the technical standards, they will be subject to the Clinical Attendance and Clinical Absence Hours policies see Degree Manual.

Dismissal and Downtime

Policy

Students are expected to attend their entire 8-hour clinical shift (not including lunch) each day of their clinical rotation to meet the clinical requirements to graduate.

Procedure

If staff dismiss a student early, students should first follow the downtime procedure below:

- 1. Complete objectives.
- 2. Review goal sheet Ask how you are doing and what areas you can improve.
- 3. Practice:
 - a. On treatment machine: pendants, positioning, or treatment setups (electron, hetero, cord compression, whole brain, etc.), align portal images on the XVI/IVIEW computer.
 - b. Other rotations: Review MOSAIQ (Rxs, doses, and beam orientation on patients and compare with the standards of care), practice lining up conebeams, practice calculations, chart checks, fill out a case study form on eValue.
- 4. Go to another rotation if there is no student.
- 5. Stock treatment and dressing rooms, snap gowns, clean areas/supplies.
- 6. Talk to clinical site supervisor for extra tasks.
- 7. Contact Clinical Coordinator (CC)
 - a. The CC will provide you with further guidance for downtime activities.
- 8. **Homework is not allowed** until the above steps are followed. Homework should only occur in non-patient care areas (e.g. library, breakroom, conference room, dosimetry, etc.).
- 9. Student dismissal from the clinic is subject to the Time Tracking policy see Degree Manual.

Magnetic Resonance Imaging (MRI) Safety

Policy

Students must adhere to MRI safety policies and procedures required by the program, its affiliated clinical sites, and the JRCERT.

- 1. Students complete the MRI safety module and compliance course in ICON.
 - Completion of this course is required upon acceptance and annually thereafter. Refer to Degree Manual: Clinical Compliance Courses.
 - All affiliated sites accept this safety orientation for compliance.
- 2. Students will complete the MRI Health Screening form at orientation and upload in eValue.
 - Students must notify the Program Director and the Clinical Coordinator if their responses on the form ever change.
 - Any questions or responses of "yes" on the screening form will be addressed with a certified MR technologist before the student begins clinical rotations. Students deemed unsafe for the MR area will be offered an alternative rotation or not allowed entry into the Level IV Safety area (MR room).
- 3. Failure to follow the MRI Safety policy will result in removal from the clinical internship rotation.
- 4. Time removed from clinical rotations will be subject to the Clinical Attendance & Clinical Absence Hour policies (see Degree Manual).
- 5. Students with multiple MRI Safety policy violations will be subject to the Judicial Process (see Degree Manual).

Radiation Safety Guidelines

Policy

- 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 radiation oncology breakroom for review within 30 days of generation.
- 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.
- 11. 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.
- 12. Any student who is personally going through diagnostic or therapeutic procedures and/or treatments should not wear their dosimeter during these personal exams.
- 13. 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.
- 14. 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.
- 15. 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.
- 16. The annual student's dosimetry badge reading will not exceed the following NRCP protection recommendation (see following chart):

Annual Maximum Permissible Dose Limits					
mrem	rem				
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			

Procedure

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

- Action Level I: EHS contacts individuals and their program director/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 the program director to discuss the individual's exposure and potential actions.

ALARA Level I	ALARA Level II	
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

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.

- 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^{th} day of each month.
- 3. Any dosimeter not **received** by the EHS Office by the 10th 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.

Student Supervision

Policy

Students in the Radiation Therapy Program are required to adhere to Program policy regarding supervision in the clinical setting. **There are no exceptions to the student supervision policy.** The Program adheres to the JRCERT's definitions of direct supervision:

Direct supervision is defined as student supervision by a qualified practitioner who:

- is physically present during the conduct of the procedure,
- reviews the procedure in relation to the student's achievement,
- evaluates the condition of the patient in relation to the student's knowledge, and
- reviews and approves the procedure and/or image.

Supervision of students over closed-circuit monitor(s) is not acceptable.

Additionally, per program policy:

- Students are not allowed to enter the treatment room with a patient without a therapist.
- Students must always be directly supervised anytime ionizing radiation is in use a radiation therapist must be within arm's reach of the control console.
- Students should communicate to verify parameters with the supervising therapist before beaming on each time.

- 1. Students are always to have direct supervision by a certified radiation therapist during patient procedures. Student employees cannot supervise students there are no exceptions.
- 2. Students will acknowledge at the end of each rotation on their rotation evaluation that they were directly supervised during their rotation.
- 3. Students are reminded of this policy each semester at mid-term advising in addition to attesting to the student handbook annually.
- 4. Students found to be in violation of the Student Supervision policy are subject to the Disregard of Student Supervision policy.

Disregard of Student Supervision

Policy

Students are required to know the program 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 supervision policy.

- 1. Students found in violation of the supervision policy, will be immediately placed on program probation for the duration of their enrollment in the program.
- 2. Second reported violations of the supervision policies will result in student suspension from the program pending review of their case by the Radiation Sciences Promotions Committee.
- 3. Disciplinary actions for multiple violations will be determined by the Radiation Sciences Promotions Committee and can include but are not limited to failure of clinical internship courses, required leave of absence from the program, probation, suspension, or program dismissal.

Tuition & Fees

Tuition & Fees

Students in the Program will be assessed tuition & fees from the University of Iowa.

Tuition, Fees, and Expenses (On Campus Programs) | Radiation Sciences Programs (uiowa.edu)

Tuition & Fees | Office of the Registrar (uiowa.edu)

The University of Iowa - Tuition & Fees (uiowa.edu)

Miscellaneous Fees

Program Acceptance Fee/Tuition Deposit/Clinical Assessment Fee:

- \$535.00
- \$300 will be credited toward tuition for Fall Semester

Textbooks:

• \$500 (approximate) for textbooks before entering the Program

Clinical Uniforms: \$200 (approximate) for uniforms:

• Three (3) scrub sets and shoes before entering the Program

ARRT Certification Examination:

• \$225 application fee; paid in terminal Spring semester.

Iowa Permit to Practice: \$60 application fee

- Paid after successful completion of ARRT examination
- Only applicable if working in Iowa

Tuition Refunds

UI tuition and fee refunds will occur according to the published UI schedule of courses, significant deadline dates.

Academic Calendar | Office of the Registrar | The University of Iowa (uiowa.edu)

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Volunteer Opportunities

Policy

Students may voluntarily participate in various program activities and are encouraged to participate in professional society activities (e.g., ASTRO, ISTRO, etc.), continuing education (CE) sessions recognized by the ASRT, and additional eligible opportunities. These experiences are important for professional development and can provide supplemental education. Students may accrue up to 2 hours of personal leave time per semester for attending approved activities scheduled outside of clinic or class time. If the event occurs during a student's scheduled class or clinic, the student may be excused for travel or attendance. However, they will not accrue absence hours for the time they are scheduled in class or clinic. Earned time is credited to the student's clinical absence hours at a ratio of 1:1. Opportunities for volunteer activity listed below are subject to change.

Students are eligible to earn clinical absence hours for activities if they:

- Attend on their own time (not missing class/clinic).
- Have earned an A for their clinical internship grade the previous semester.
- Have never earned a clinical performance appraisal grade below B+.
- Have at least 1 hour of clinical absence hours remaining in their bank at the time of the request.

- 1. Eligible events will be announced to all students.
- 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. Service events
 - f. Professional conference attendance
 - g. Professional conference presentations
 - h. Student mentorship
 - i. Prospective student recruitment events
- 3. Additional opportunities may be available through program events and personal leave time will be handled on a case-by-case basis.
- 4. If students become aware of a potential opportunity, they should notify the program director and clinical coordinator and request approval. If approved, all students will be made aware of the opportunity.
- 5. Students will receive earned time after submitted documentation of their attendance, this could include a copy of a CE certificate, a one paragraph summary, or other form of documentation.

Student Handbook Policy Awareness Form

Policy

This form will serve as verification that the student has read and understands the Radiation Therapy Education Student Handbook for the Radiation Sciences Radiation Therapy 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 and the Carver College of Medicine, University of Iowa Radiation Sciences Policies and Procedures Manual, Radiation Therapy Education Program Student Handbook, the University of Iowa Health Care, and the University of Iowa Department of Radiology and Radiation Oncology policies and procedures. The student handbooks can be found on the program website and eValue.

- 1. Policies and procedures for the Bachelor of Science, Radiation Sciences degree program and the Radiation Therapy Education program will be reviewed annually at orientation and each Fall semester.
- 1. The policy awareness form, titled Radiation Therapy Student Handbook, will be completed annually and uploaded to eValue. The document can be found on the eValue Home Page under Compliances, Annual Attestations.
- 2. 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.
- 3. 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.
- 4. Time absent from clinical rotations for review attendance will be subject to the Clinical Attendance & Clinical Absence policies. See Degree Manual.
- 5. Students with multiple failed Policy and Procedures quizzes will be subject to the Judicial Process. See Degree Manual.

Appendix A: Academic Calendars 2024-2025

Fall 2024

August 2024							
S	м	т	w	Th	F	S	
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11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	

September 2024							
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15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30						

October 2024						
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13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

November 2024							
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10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

December 2024							
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15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30	31					

First/Last Day of Class	
University Break (no class or clinic)	
Clinic Only (no classes)	

Spring 2025

January 2025							
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12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31		

February 2025						
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23	24	25	26	27	28	

March 2025								
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16	17	18	19	20	21	22		
23	24	25	26	27	28	29		
30	31							

April 2025							
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20	21	22	23	24	25	26	
27	28	29	30				

May 2025								
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11	12	13	14	15	16	17		
18	19	20	21	22	23	24		
25	26	27	28	29	30	31		

First/Last Day of Class	
University Break (no class or clinic)	
Clinic Only (no classes)	

Summer 2025

June 2025							
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15	16	17	18	19	20	21	
22	23	24	25	26	27	28	
29	30						

July 2025								
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13	14	15	16	17	18	19		
20	21	22	23	24	25	26		
27	28	29	30	31				

August 2025							
S	М	Т	w	Th	F	S	
					1	2	
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	
31							

First/Last Day of Class	
University Break (no class or clinic)	
Clinic Only (no classes)	

Appendix B: Clinical Sites

- University of Iowa Health Care Medical Center
 - 200 Hawkins Drive, Iowa City, IA 52242
- University of Iowa Health Care Cancer Services Quad Cities-Radiation Oncology
 - 1351 Kimberly Rd Suite 200, Bettendorf, IA 52722
- Hall-Perrine Cancer Center (HPCC)
 - 701 10th St. SE, Cedar Rapids, IA 52403
- Nassif Community Cancer Center (NCCC)
 - 202 10th St. SE, Cedar Rapids, IA 52403
- John Stoddard Cancer Center (JSCC)
 - 1221 Pleasant St., Des Moines, IA 50309
- MercyOne Dubuque Cancer Center (MDCC)
 - 250 Mercy Dr., Dubuque, IA 52001

Appendix C: Program Administrative Information

Organization of the Radiation Therapy Education Program

Administrative Program Director, Baccalaureate Degrees in Radiation Sciences

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

Director, Radiation Therapy Education

Jared Stiles, MSL, RT(R)(T) jared-stiles@uiowa.edu

Clinical Coordinator, Radiation Therapy Education

Emily Heithoff, MHPTT, RT(R)(T) emily-heithoff@uiowa.edu

Adjunct Faculty

Emma Rickels, DMP, Medical Physicist

Administrative Services Coordinator

Laurie Calkins

laurie-calkins@uiowa.edu

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 College of Medicine faculty in the Department of Radiology, at the University of Iowa Health Care Medical Center, University of Iowa Health Care Cancer Services Quad Cities-Radiation Oncology, Hall-Perrine Cancer Center (HPCC)-Cedar Rapids, Nassif Community Cancer Center (NCCC)-Cedar Rapids, John Stoddard Cancer Center (JSCC)-Des Moines, and MercyOne Dubuque Cancer Center (MDCC) under the close guidance of licensed radiation therapists.

The program accepts a maximum of 8 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, FACR

Vice Chair for Clinical Operations and Education, Department of Radiology

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

Clinical Department Administrator, Department of Radiology

Gregory Lehmann, MHA

Director, Radiation Therapy Education

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

Clinical Coordinator, Radiation Therapy Education

Emily Heithoff, MHPTT, RT(R)(T)

Administrative Program Director, Baccalaureate Degrees in Radiation Sciences

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

Directors, Radiation Sciences

Jennifer Maiers, MHA, RT(R)(CT)(VI)(QM) Jared Stiles, MSL, RT(R)(T) Holly Bonfig-Becker, MA, RT(R)(M) Jay Smith, MA, CNMT, RT(R)(N)



Carver College of Medicine