

Student Handbook

University of Iowa; Carver College of Medicine
Nuclear Medicine Technology Education
Program

2025 – 2026 Academic Year

Preface:

This document is available electronically on the ICON site Rad Sci NMT Program Resource Center.

Students of Nuclear Medicine 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 Policies and Procedures Manual for students in the Bachelor of Science in Radiation Sciences and Bachelor of Science in Nuclear Medicine, and the University of Iowa student policies [[Policies | Dean of Students - The University of Iowa \(uiowa.edu\)](#)]. Program faculty will consult these resources 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 in the Policies and Procedures Manual for students in the Bachelor of Science in Radiation Sciences and Bachelor of Science in Nuclear Medicine 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 Nuclear Medicine Technology degree program.
- “Program” will refer to the Nuclear Medicine Technology Education Program.
- “Program Officials” will refer to the Program Director, Clinical Coordinator, Radiation Sciences Educators, and designated adjunct instructors.
- “Administrative Director of Radiation Sciences” will refer to the Administrative Director of Baccalaureate degrees in Radiation Sciences and Nuclear Medicine Technology.
- “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

Contents

Organization & Sponsorship	6
Program Description	7
Mission Statement, Goals & Learning Outcomes.....	8
Mission Statement.....	8
Goals & Learning Outcomes.....	8
Nuclear Medicine Technology Program Objectives.....	9
Contacts & Communications	10
Accreditation	11
ARRT Examination Requirements	12
NMTCB Examination Requirements	13
Attestations	14
Clinical Competency.....	15
Procedure to Obtain a Clinical Competency.....	16
Clinical Evaluations	17
Clinical Assignments	18
Clinical Internship Grading.....	19
Clinical Internship Grade Deductions	20
Clinical Rotation Float Policy.....	21
Student Policy & Procedure – Violations.....	22
Student Counseling Session	23
Student Night / Weekend Call.....	24
Clinical Schedule and Obligations	25
Dress Code for NMT Clinical Education.....	26
Dosimeter Procedure	27
Lost, Late, or Missing Dosimeters	29
Policy Awareness Form	30
Radiation Safety Guidelines	31
Student Supervision	33

Judicial Procedure for Disregard of Student Supervision Policies	34
Student Volunteer Opportunities	35
Appendix A: Academic Calendars 2026-2026.....	36
Appendix B: Clinical Sites.....	37
Appendix C: Program Administrative Information.....	38
Appendix D: Advisory Committee	39

Organization & Sponsorship

The University of Iowa sponsors the Nuclear Medicine Baccalaureate Degree. The program is within the organizational structure of the University of Iowa Health Care, Carver College of Medicine, Department of Radiology. Dr. Bruno A. Policeni, MD is the Chair of the Department of Radiology. Greg Lehmann is the Clinical Department Administrator.

Dr. Yusuf Menda is the Medical Advisor to the program.

The program accepts up to 9 students per year.

The Nuclear Medicine Technology Education Program has substantial clinical rotations within the University of Iowa Hospitals and Clinics Departments of Radiology, the Heart and Vascular Center, as well as UIHC off-campus sites. There are rotations to affiliate clinical sites outside of the University of Iowa Hospitals and Clinics.

Educational experiences include didactic course work, laboratory activities, clinical education, and independent study.

Program Description

The nuclear medicine technology degree is a twenty-one-month long program. This program is selective and competitive; acceptance is not guaranteed. Students must satisfy all UI admission requirements, complete all prerequisites, and be accepted into the nuclear medicine technology professional program following an application and selection process.

Upon completing the program, graduates are eligible to apply for the ARRT and Nuclear Medicine Technology Certification Board (NMTCB) national certification exams in nuclear medicine technology.

Students typically apply to this two-year program their second year, with an option for early acceptance their first year, and begin in fall of their sophomore or junior year. Application deadline is January 15. Up to 9 students are accepted into the nuclear medicine technology program.

The University of Iowa Bachelor of Science in Nuclear Medicine Technology is recognized by the Joint Review Committee on Educational Programs In Nuclear Medicine Technology (JRCNMT).

Mission Statement, Goals & Learning Outcomes

Mission Statement

The Nuclear Medicine Technology Education program at the University of Iowa is dedicated to providing an environment of opportunity and scholarship that will allow our students to learn successfully learn and develop into the well-rounded Nuclear Medicine Technologists of tomorrow.

The program's mission is in concert with the Carver College of Medicine mission to inspire and educate world class healthcare providers and scientists for the people of Iowa and our global community.

Goals & Learning Outcomes

- To prepare clinically competent entry-level nuclear medicine technologists who demonstrate quality technical skills and knowledge in the domains of:
 - Professionalism
 - Patient Care
 - Radiation Safety
 - Instrumentation and Quality Control
 - Radiopharmaceuticals and Pharmaceuticals
 - Diagnostic Procedures
 - Radionuclide Therapy
- To prepare nuclear medicine technology professionals that function as a compassionate and competent part of the healthcare team and represent the commitment to excellence that the program strives to achieve.
- To prepare nuclear medicine technology professionals that demonstrate critical thinking, professional decision making, and desire for professional life-long learning.
- To demonstrate effective communications skills to foster team collaboration and to provide quality patient care

Nuclear Medicine Technology Program Objectives

Upon completion of the Nuclear Medicine Technology Program, the student will be able to perform the following:

1. Identify and describe nuclear medicine and PET/CT terminology and use that terminology in an effective manner.
2. Identify and perform appropriate patient care procedures and techniques used in the general care of patients in various states of health and in various conditions demanding special needs.
3. Demonstrate knowledge of the physical principles of nuclear medicine and PET/CT and their applications to the clinical environment.
4. Manipulate the technical controls on the equipment used in the nuclear medicine and PET/CT departments to produce an optimum image for diagnostic purposes.
5. Archive images necessary for a diagnostic nuclear medicine and PET/CT examination.
6. Employ the use of medical terminology and abbreviations pertinent to diagnostic medical nuclear medicine.
7. Identify the biological effects of diagnostic nuclear medicine and take the necessary precautions to avoid excessive exposure of radiation to self and to patients.
8. Demonstrate the ability to mentally transform gross anatomy to sectional anatomy relative to diagnostic nuclear medicine and PET/CT.
9. Identify normal and pathological conditions on nuclear medicine and PET/CT scans routinely examined in a diagnostic nuclear medicine department.
10. Demonstrate the appropriate skills in performing a quality assurance test utilizing a phantom.
11. Conduct oneself in a courteous and professional manner while in the hospital environment.

Contacts & Communications

Address

Nuclear Medicine Technology Education
University of Iowa Hospitals & Clinics
200 Hawkins Drive 3974 JPP
Iowa City, IA 52242

Absence Line Contact Number

(319) 356-0532

Telephone Numbers – (319) area code

Program Director (NMT)

Jay J Smith 356-2954

Clinical Coordinator (NMT)

Kelli Schlarbaum 356-2920

NMT Educators

Mastascusa, Nic 384-5159
Graves, Stephen 678-7986

Student Affairs

Jennifer Maiers 353-9110
Kelley Kirby 384-7273

Program Directors

Stephanie Ellingson (DMS) 356-4871
Jared Stiles (Radiation Therapy) 356-8286
Holly Bonfig-Becker (RT) 356-4332

Support Staff

Laurie Calkins 356-3861

Clinical Locations

UI General NM Front Desk 656-1911
UI PET Front Desk 356-4100
UI PET Control Room 353-8806
UI PET V3 Control Room 356-3958
UI Cardiac 354-9078
UI Cardiac Stress Lab 356-0522
Iowa City VA Med Center 338-0581
UI Downtown NM Front Desk 339-3629
Mercy Medical Center 398-6053

Accreditation

The Nuclear Medicine Technology Program is accredited by the:

Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT)

820 W Danforth Rd, Suite B1

Edmond, OK

Phone: (405) 285-0546

Web: <https://www.jrcnmt.org/>

Email: mail@jrcnmt.org

The Program was awarded the maximum accreditation period of 4 years on October 22, 2021.

We are awaiting the final report for our 2025 Site Visit

- To maintain this accreditation, the Program must strictly follow the Standards for an Accredited Educational Program in Nuclear Medicine (Appendix A), which is published by the JRCNMT, 820 W. Danforth Rd, Suite B1, Edmond, OK, 73003, (405) 285-0546, mail@jrcnmt.org. Students have the right to file a complaint if any of the Standards have been violated by the Program.
1. All allegations about non-compliance with JRCNMT 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. During 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.

ARRT Examination Requirements

The purpose of ARRT certification and registration in Nuclear Medicine Technology is to recognize individuals who are qualified to perform the role of a nuclear medicine technologist. To earn ARRT (N) certification and registration as a nuclear medicine technologist requires pursuit of the primary eligibility pathway. This pathway includes completion of the ARRT (N) prescribed components:

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

Specifics for ARRT (N) credentialing can be found at their site:

- [Home Page ARRT](#)

Specifics for each component can be found:

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

*The ARRT requires that certified nuclear medicine technologists and persons applying for certification demonstrate ethics and possess high moral standards. These requirements are governed by the [2023 ARRT Standards 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](#).

NMTCB Examination Requirements

The purpose of NMTCB certification and registration in Nuclear Medicine Technology is to recognize individuals who are qualified to perform the role of a nuclear medicine technologist. To earn NMTCB certification and registration as a CNMT – certified nuclear medicine technologist requires pursuit of the primary eligibility pathway. This pathway includes completion of the NMTCB prescribed components:

1. Completion of a NMTCB recognized nuclear medicine technology program
2. Ethics Requirement
3. Examination Requirement

Specifics for NMTCB credentialing can be found at their site:

- [Nuclear Medicine Technology Certification Board | NMTCB](#)

Specifics for each component can be found:

1. Education Requirements:
 - [Didactic Education Definitions - Nuclear Medicine - Exams | NMTCB](#)
2. Ethics Requirements*:
 - [Pre-Application Review Process - Nuclear Medicine - Exams | NMTCB](#)
3. Examination Requirements:
 - [Examination Requirements](#)

* The NMTCB requires that certified nuclear medicine technologists and persons applying for certification demonstrate ethics and possess high moral standards. These requirements are governed by the [Code of Ethics - Policies | NMTCB](#). When applying for certification you must answer [Ethics Questions - Policies | NMTCB](#) to identify potential ethics violations. If you have concerns about a potential ethics violation, students may request a [Pre-Application Review Process - Nuclear Medicine - Exams | NMTCB](#).

Attestations

Policy

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

New Student Attestations:

1. ARRT/NMTCB Pre-Application Review
2. NMT Student Handbook Review Waiver
3. Photo Release Waiver
4. Radiation Sciences Policies & Procedures Manual Waiver
5. Recommendation Release

Annual Attestations:

1. Background Disclosure
2. Radiation Sciences Policies & Procedures Manual Waiver
3. NMT Student Handbook Review Waiver
4. 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 Radiation Sciences 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 assessment is to verify comprehensive student accuracy of exam process, procedure, and technical skill required for patient care, medical imaging, and nuclear medicine procedures. Verified competency is required by the American Registry of Radiologic Technologists (ARRT-N) and/or the Nuclear Medicine Technology Certification Board (NMTCB) and demonstrates proficiency in exams. ARRT (N) and NMTCB Clinical Competency requirements can be found at [ARRT \(N\)](#) and [NMTCB Components of Preparedness](#)

Procedure

1. Students are required to follow the steps prescribed in the Procedure to Obtain a Clinical Competency chart.
2. Students are required to use the Level 3 Clinical Competency Evaluation Forms found on eValue.
3. Clinical competencies are evaluated as Level 1, Level 2, and Level 3. If you have not met all the requirements to successfully demonstrate competency, you will be required to repeat the exam at a later date.
4. Prior to attempting a clinical competency, the student must communicate with their technologist. All Level 1, Level 2, and Level 3 competency attempts are to be made under the direct supervision of an imaging technologist or radiation sciences educator.
5. The student should make every attempt possible to obtain the required signatures and competency exams on patients before requesting simulation.
6. Clinical Procedure Case Logs must be added in e*Value for all competencies
7. Case logs submitted for competencies must have a staff or educators name attached and will count as the students Level 3 Competency.
8. Students who submit falsified clinical competencies, attempt to submit falsified clinical competencies, or engage in any deceitful behavior associated with obtaining or submitting a clinical competency will be subject to the Judicial Process (see Degree Policies & Procedures Manual).
9. Students who violate the Procedure to Obtain a Clinical Competency policy will be subject to the Judicial Process (see Degree Policies & Procedures Manual).
10. Students with multiple Clinical Competency policy violations will be subject to the Judicial Process (see Degree Policies & Procedures Manual)

Procedure to Obtain a Clinical Competency

Step	Activity
1. Classroom/Didactic	Instruction: Procedures and image analysis
2. Level 1 – Observational participation	Level 1 can be documented at any time during clinical/ laboratory rotations. (Case Log verification in E*Value required)
3. Level 2 – Active Participation/ Minimal Supervision	Students must be directly supervised by a registered nuclear medicine technologist when attempting to obtain a Level 2 clinical competency. The student must perform much of the examination with minimal assistance. This includes 100% of the patient positioning and 100% of the equipment operation. (Case Log verification in E*Value required)
4. Level 3 – Total Responsibility for Procedure; Indirect Supervision Only	The student must notify the NMT they wish to attempt a competency prior to the start of the exam. The student is also instructed to present the “Level 3 Clinical Competency Evaluation Form” during the study. Students must demonstrate 100% accuracy of positioning and exam requirements with minimal assistance to obtain a competency. The NMT assessing the clinical competency cannot offer any assistance with positioning, equipment operation, or image processing in the procedure. (Case Log verification in E*Value required) – Level 3 COMPETENCY
5. Independent Practice	After students receive their Level 3 competency, they are expected to continue to practice independently. Direct and Indirect Supervision Policies always apply. (Case Log verification in E*Value required)

- Logging cases in E*Value is mandatory for Level 3 Competencies

Clinical Evaluations

Policy

Clinical staff members are responsible for completing performance evaluations to assess student performance during their assigned rotations. Aggregate data from the semester's clinical performance evaluations will be used to calculate the student's final clinical internship course 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 one clinical performance evaluation form to the staff member they spent time with during their clinical internship activities.
4. Students are responsible to verbally confirm with staff prior to sending a clinical performance evaluation.
5. Students are required to have **one** clinical performance evaluation per clinical rotation.
6. It is the student's responsibility to initiate the clinical performance evaluation each rotation and to confirm the clinical performance evaluation has been completed.
7. Students who send less than the required number of clinical performance evaluations per semester will receive a grade deduction per the Clinical Internship Syllabus.
8. At any time, staff members may request to fill out a clinical performance evaluation form for a student. This clinical performance evaluation will be factored into the final clinical evaluation grade.
9. Students who send an unacceptably low number of clinical performance evaluations in a semester will be subject to the Judicial Process (see Degree Policies & Procedures manual).
10. Students who violate the clinical evaluations policy and procedure will be subject to the Judicial Process (see Degree Policies & Procedures manual).

Clinical Assignments

Policy

During their clinical internship, students will complete ICON assignments, a critical component of the Nuclear Medicine Technology (NMT) Program at the University of Iowa. These assignments are designed to reinforce theoretical knowledge, provide practical application exercises, assess students' professionalism, and ensure continuous assessment of student progress throughout the program. Clinical Assignment grades will be used to calculate the student's final clinical internship course grade.

Procedure

1. Each Semester, students are required to complete Clinical Internship Assignments
 - a. Junior Year
 - i. Fall – Journal Forms
 - ii. Spring – Clinical Professionalism
 - b. Senior Year
 - i. Summer – SNMMI Meeting, Clinical Reflections
 - ii. Fall – Case Studies
 - iii. Spring – Board Review, SOP Development
2. All Clinical Assignments can be found on the Clinical Internship ICON course site.
3. Clinical Assignments will be graded using the rubric available on the ICON course site for the given assignments.
4. It is required that students complete the clinical assignments before the due date specified on the ICON course site.
5. Failure to complete the Clinical Assignment prior to the due date results in a 0 for that assignment.

Clinical Internship Grading

Policy

The final Clinical Internship grade is comprised of multiple, varying criteria each semester and is assigned as designated in the clinical internship grading scale found in the appendices of this handbook. The components applicable each semester are identified in the NMT Clinical Internships Syllabi as well as evaluation of adherence to program policies and procedures. Each component carries weight in its designated semester.

Procedure

1. Midsemester Clinical Internship grade evaluations will be generated and completed (by a student's clinical advisor) near the midpoint of each semester.
2. Final Clinical Internship grade evaluations will be generated and completed (by a student's clinical advisor) at the end of each semester.
3. Final grades will be calculated according to the components identified for that semester in the NMT 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 greater in each individual component of the final Clinical Internship grade. If a student earns below a C, they will receive an F for that component of their clinical internship grade.
6. 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 final grade. See Clinical Absence Hour policies in the Degree manual.
7. If a student fails an individual component of the semester grading criteria, they will be subject to the Academic Standards. See Degree manual.
8. 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 Internship Grade Deductions

Policy

The following actions will result in grade reductions for students enrolled in the Nuclear Medicine Technology Program:

Procedure

- Negative Clinical Absence Hour Grade Reduction: Radiation Sciences Policies and Procedures Manual
- Use of Electronic Devices – Radiation Sciences Policies and Procedures Manual
 - Students found in violation of this policy for a second time or more during the length of the program will also be subject to a deduction of half a letter grade (i.e., A to A-).
- Clinical Evaluations – Clinical Internship Syllabus
 - Failure to complete the required number of evaluations will result in lowering of a half letter grade for every missing evaluation (i.e., A to A-).
- Unapproved Clinical Absence – Radiation Sciences Policies and Procedures Manual
 - Students found in violation of this policy for a second time or more during one clinical internship will also be subject to a deduction of half a letter grade (i.e., A to A-) for each offence.
- Case Logs – NMT Student Handbook
 - Failure to maintain and submit an accurate log record in e*Value will result in an overall clinical grade reduction by one-half letter grade (i.e., A to A-).
- Failure to Meet Program Expectations
 - Any actions not meeting program expectations, such as multiple dosimeter violations and other professional violations, will be discussed with students.
 - Multiple meetings to discuss failure to meet program expectations may result in grade deductions as determined by the program director and clinical coordinator.

These grade reductions will be enforced uniformly and consistently to ensure fairness and uphold the standards of the NMT program.

Students will be notified in writing of any grade reductions and the reason for them.

Clinical Rotation Float Policy

Policy

1. General Float Policy for All Students

Students may float to an open rotation under the following conditions:

- Their current room or rotation has finished early, and their clinical technologist has approved the float.
- The assigned camera or room is shut down.
- No doses are available for their clinical rotation.
- A clinic or rotation has been canceled or shut down.

Communication Requirement:

Before floating, students must:

1. Confirm with their clinical technologist.
2. Inform their Clinical Coordinator.

2. Float Policy for Senior Year Clinical Internship IV & V

Students in Clinical Internship IV and V may float to rare but required ARRT competencies, including:

- Gastroesophageal Reflux
- GI Bleed
- Hemangioma
- Liver/Spleen
- Meckel Diverticulum
- Thyroid Uptake

Conditions for Floating:

- The student must communicate with their assigned technologist about their intent to participate in the competency.
- No other student should be scheduled for that rotation.
- The student must inform both the **clinical instructor** and the **Clinical Coordinator** of their participation.
- Please see the [MCU General Nuclear Medicine Student Policy](#) found on the NMT ICON site for more information

By enrolling in the NMT program, students acknowledge and agree to adhere to these policies and understand the consequences of failing to do so.

Student Policy & Procedure – Violations

Students of the Nuclear Medicine Technology Education program are responsible for knowing and adhering to the policies and procedures of the University of Iowa (UI), UI Health Care, Radiation Sciences Degree, and Nuclear Medicine Technology program.

To ensure fair enforcement of the policies and procedures, the following procedure will be utilized to address alleged violations:

1. Nuclear Medicine, PET, or program staff witnessing or receiving information of the violation will contact the program officials and notify them of the allegation.
2. Nuclear Medicine, PET, or program staff witnessing or program officials receiving information of the violation will create a policy violation documentation form. Template for this form can be found on the NUC and PET- Shared drive > student documentation > Documentation of Policy and Procedure Violation template.
3. Program officials will notify the student by email that a policy violation has been reported and schedule a meeting. Required attendees include:
 - a. Nuclear Medicine, PET, or program staff witnessing or receiving information of the violation.
 - b. The student
 - c. The student's clinical coordinator or program director
4. Program Officials will review the prepared policy documentation violation form including any disciplinary sanctions.
5. The student will sign the form.
6. The form will be scanned, and an electronic copy will be emailed to:
 - a. Nuclear Medicine, PET, or program staff witnessing or receiving information of the violation.
 - b. The student
 - c. Clinical Coordinator
 - d. Program Director

Student Counseling Session

An important component to student success is early detection and intervention when students are struggling to meet the program didactic, clinical, professional, or ethical expectations. Nuclear Medicine Technology program officials and educators are responsible for observing, monitoring, and addressing behaviors that are counterproductive to student success.

Program officials and educators will meet with the student, in-person, for a formal counseling session if:

- The student earns a failing grade in a course assessment.
- The student receives consistently low scores on clinical evaluations.
- The student is underperforming in any individual component of their clinical internship final grade. See Clinical Internship syllabus for details on components.
- The student has a sudden decrease in clinical scores/scores not typical of their recorded performance.
- The student has numerous, negative comments on clinical evaluations.
- Program officials receive reports directly from clinical staff regarding poor student behavior/clinical performance, new or sudden.
- Program officials observe concerning behavior, new or sudden.

*This is not meant to be a comprehensive list of instances. Program officials must use their judgement to hold a counseling session if/when the need arrives.

Student Night / Weekend Call

Policy

Night and weekend call is deemed valuable because it provides an opportunity for the student to be involved in emergency procedures and without the usual supporting staff (e.g., patient transporter, radiopharmacist, and other staff technologists). The services these people provide are often taken for granted. It is hoped the student will gain an appreciation for the extra duties associated with being on-call before they find themselves on-call in their first job. In addition, the student may have the opportunity to see studies that are rarely performed during routine clinical hours.

Procedure

1. Each student will have the opportunity to share call with the staff technologist during their clinical internships in semesters IV and V. Call will be for a period of one or two weeks at a time. Refer to the clinical rotation schedule.
2. The student is not intended to replace the staff but to participate to the extent their knowledge and skill levels allow. The student is not to start an on-call procedure without their supervising technologist physically present.
3. So that it will not interfere with the routine clinical and didactic portions of the program, call will be restricted to 5:00 P.M. – 10:00 P.M. on clinic days only and 7:00 A.M. – 10:00 P.M. on Saturday and Sunday. The student and technologist on call may negotiate changes to these time parameters. Taking call is never mandatory but the student is expected to take this responsibility seriously and to fulfill any arranged commitment made with the technologist on call.

Clinical Schedule and Obligations

1. Students are assigned clinical rotations that offer educationally valid clinical experience on an equitable basis.
2. Clinical rotations are created that provide a wide range of procedures for competency and include outpatient, inpatient, surgical, and trauma examinations.
3. Students are assigned to didactic and clinical rotations for a maximum of 8.5 hours per day.
4. All assigned clinical hours include a 30-minute lunch break. Time of lunch break to be assigned by supervising clinical staff.
5. Lunch break is to be taken 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.
6. Assigned clinical hours for rotations are found on the student schedules contained in e*Value. Clinical days and hours vary by clinical assignment.
7. 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.
8. 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.
9. Varied clinical days and hours include day, evening, and weekend.
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.

Dress Code for NMT Clinical Education

Policy

In addition to the Radiation Sciences Policies and Procedures for Dress Code for Clinical Education, nuclear medicine students must adhere to strict clinical and laboratory standards.

Procedure

1. Nuclear Medicine Technology students must wear a white student lab coat along with program-approved scrubs.
2. Body and ring dosimeters must be worn at all times during students' clinical rotations. If a student believes they have misplaced their dosimeters, they must notify the program officials immediately. Students are not allowed to participate in clinical activities without both dosimeters.
3. Failure to notify program officials of missing dosimeters will result in a policy warning.
4. Students will use clinical absence hours until their dosimeter is found, or a loner is assigned by EHS.
5. Program officials will contact EHS on behalf of the student; the student will then be responsible for going to EHS to acquire the replacement dosimeter. Clinical absence time will be assessed from the time of notification of the lost dosimeter until the replacement dosimeter is acquired and the student is available to return to their assigned clinical rotation.
6. If a student does not find the lost body or ring dosimeter, they should refer to the lost, late, or missing dosimeter policy below.
7. Hair should be pulled back and secured to ensure it does not interfere with patient care or cleanliness in the laboratory setting.
8. Upon entering the lab or clean room:
 - a. Students should refrain from wearing extensive makeup, including fake eyelashes, extensive mascara, or chipped nail polish.
 - b. Students must maintain clean and appropriately trimmed nails while in the lab and clean room.
 - c. Chewing gum or applying ChapStick is not permitted in these areas.

Dosimeter Procedure

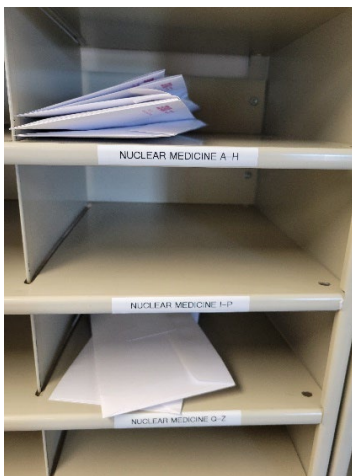
Policy

Personal monitoring devices used to record occupational radiation exposures are supplied and processed through a commercial dosimeter service. The administration and management of the student-monitoring program is provided by EHS. Copies of dosimetry reports are provided to each dosimeter account and are maintained on file at EHS.

Student dosimeters are assigned to individuals based upon their potential exposure to penetrating radiation and regulatory requirements.

Procedure

1. Dosimeters must be worn **at all times** while in the clinical setting, including labs and any area where radiation exposure is possible.
2. Badges should not be worn outside of clinical or instructional settings (e.g., at home).
3. Each student will be issued the following dosimeters:
 - a. P1 - Whole Body dosimeter - The P1 dosimeter provides a measurement of the deep (DDE) and shallow (SDE) radiation dose equivalent received by the whole body. A black body icon (shown on the dosimeter) identifies the P1 whole body dosimeter. Wear this dosimeter on the torso at waist or chest level.
 - b. U3 - Ring dosimeter – The U3 ring dosimeter provides a measurement of the extremity radiation dose equivalent received by the lower arm and hand. The U3 dosimeter is to be worn under the protective latex glove on a finger of the hand likely to receive the highest radiation exposure. A second ring dosimeter (identified as a "U4") worn on a finger of the opposite hand is recommended for individuals who routinely prepare and/or administer radiopharmaceuticals.
4. Dosimeters are issued on a **monthly basis** and must be exchanged during by the 10th of each month.
5. Students will receive an **email notification** when new dosimeters have arrived and are ready for pickup.
6. New dosimeters will be placed in the **student mailboxes in the student lounge**, organized **alphabetically by last name**.



7. Students are responsible for:
- **Swapping out** their current body and ring dosimeters with the new ones.
 - Placing the **used dosimeters securely** in the provided **return envelope**.
 - Ensuring the return envelope is properly **sealed**.
 - Placing the envelope into **campus mail** for return to **EHS** (Environmental Health and Safety).
5. Campus mailboxes are found on the first floor near elevator A and across from the first floor cafeteria by the coffee stand.



Failure to complete the exchange process on time may result in a lapse in radiation monitoring and potential disciplinary action.

Lost, Late, or Missing Dosimeters

Policy

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

Procedure

6. Dosimeters must be changed out each month and returned via enclosed campus mail envelope to the University Environmental Health and Safety Office.
7. Dosimeters must be **received** by the EHS Office by the 10th day of each month.
8. Any dosimeter not **received** by the EHS Office by the 10th day of the month will be identified as late.
9. Three (3) late dosimeters in any twelve (12) month period will incur a charge of \$30 to the student.
10. The student and the Program Director will be notified by the EHS Office via email when a dosimeter is either late or missing.
11. The students and the Program Director will be notified by the EHS Office via email when a late or missing dosimeter charge has been incurred.
12. 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.
 - o This can be paid in the form of a personal, cashier, or bank check.
 - o The check will be made out to the Nuclear Medicine Technology Program.
 - o The check must be hand delivered to the Administrative Services Coordinator, C725-GH.
13. Student ARRT and NMTCB program verification will not be approved until all program debts have been paid. Students without ARRT or NMTCB program verification cannot be certified by the ARRT or NMTCB.
14. Students with multiple violations of the Lost, Late, or Missing Dosimeter policy may 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 Nuclear Medicine Technology Education Student Handbook for the Radiation Sciences Nuclear Medicine 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 Nuclear Medicine 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, Nuclear Medicine Technology degree program and the Nuclear Medicine 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. The program uses the radiation monitoring service provided by the University of Iowa EHS.
5. The student will be provided with one P8 collar whole-body dosimeter and one ring badge. The body dosimeter should be worn at the collar level. The ring badge should be worn on the dominant middle finger (RM or LM) with the wording facing toward the palm of the hand.
6. The student will be issued new badges each month. These badges 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.
7. 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.
8. If a student has a lost or missing badge, they must report it missing to NMT program officials immediately. See Lost, Late, or Missing Dosimeter policy in this handbook.
9. Any student who is personally going through diagnostic or therapeutic procedures and/or treatments should not wear their dosimeter during these personal exams.
10. 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 or NMTCB examination verification by the Program Director.
11. If a student is dismissed or withdraws from the Program, they must turn in their badge to the NMT program officials before drop authorization will be issued.
12. 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.
13. The student's annual dosimetry badge reading will not exceed the following NRC 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

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.

ALARA 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

Student Supervision

Policy:

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

Direct supervision is defined as student supervision by a qualified nuclear medicine technologist 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 nuclear medicine technologist who:

- Is immediately available to assist students regardless of the level of student achievement (immediately available is interpreted as the presence of a qualified technologist adjacent to the room or location where a nuclear medicine 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 e*Value. Competency is achieved when students have successfully passed the competency for a specific exam.
2. Students must be directly supervised during all clean room procedures, regardless of the level of competency.
3. Once students have achieved competency, they may work under indirect supervision for applicable exams.
4. 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.**

Judicial Procedure for Disregard of Student Supervision Policies

Policy

Student supervision policies are based on the JRCNMT 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 Personal Misconduct policy will be subject to the Judicial Process.
2. Students have the right to appeal a decision by following the Judicial Appeals Process. See Appeals Processes in this document.

Student Volunteer Opportunities

Policy

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

Procedure

1. The NMT program officials will meet with 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. STEM/STEAM events
 - b. Introduction to Radiation Sciences course student panel
 - c. Career events
 - d. Staff appreciation events
 - e. Service events
 - f. Professional conference attendance
 - g. Professional conference presentations
 - h. Student mentorship
 - i. Recruitment events
3. Students who are interested in participating must notify the NMT program officials 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 hours.
 - b. Received an F at 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 NMT program officials 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: Academic Calendars 2026-2026



Radiation Sciences Academic Calendar | 2025 - 2026

Fall '25 courses begin Aug. 25

September 2025						
S	M	T	W	T	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			

October 2025						
S	M	T	W	T	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	

November 2025						
S	M	T	W	T	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						

Spr '26 courses begin Jan. 20

December 2025						
S	M	T	W	T	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			

January 2026						
S	M	T	W	T	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

February 2026						
S	M	T	W	T	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

March 2026						
S	M	T	W	T	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				

April 2026						
S	M	T	W	T	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		

May 2026						
S	M	T	W	T	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						

Fall '26 courses begin Aug. 24

June 2026						
S	M	T	W	T	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				

July 2026						
S	M	T	W	T	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	

August 2026						
S	M	T	W	T	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					

Program Break (no class or clinic)

Clinic Days Only (no classes)

Appendix B: Clinical Sites

- Iowa Health Care Medical Center University Campus
200 Hawkins Drive
Iowa City, IA 52242
- Iowa Health Care Medical Center Downtown
500 E. Market St.
Iowa City, IA 52245
- Mercy Medical Center
701 10th Street SE.
Cedar Rapids, IA 52403
- Iowa City VA Health Care System
601 US-6 W,
Iowa City, IA 52246

Additional information about clinical sites is available on the Rad Sci NMT Program Resource Center within the ongoing ICON site.

Appendix C: Program Administrative Information

Organization of the Nuclear Medicine Education Program

Administrative Director of Radiation Sciences

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

holly-bonfig@uiowa.edu

Director, Nuclear Medicine Technology Education

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

jay-j-smith@uiowa.edu

Clinical Coordinator, Nuclear Medicine Technology Education

Kelli Schlarbaum, MBA, BS, CNMT (PET)(CT), RT(N)

kelli-schlarbaum@uiowa.edu

Nuclear Medicine Technology Adjunct Educators

Nic Mastascusa, PharmD, BCNP

nmastasc@uiowa.edu

Stephen Graves, PhD

stephen-a-graves@uiowa.edu

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 (UI) College of Medicine faculty in the Department of Radiology, at Iowa Health Care Medical Center University Campus, under the close guidance of licensed nuclear medicine technologists.

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

Members of the Nuclear Medicine Technology Education Program Advisory Committee include:

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

Director, Nuclear Medicine Technology Education

Kelli Schlarbaum, MBA, BS, CNMT (PET)(CT), RT(N)

Clinical Coordinator, Nuclear Medicine Technology Education

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

Administrative Director of Radiation Sciences; Director, Diagnostic Radiologic Technology Education

Dr. Yusuf Menda, MD, Professor of Radiology, Professor of Oncology

Division Director-Nuclear Medicine, Medical Director-PET Imaging

Dr. John Sunderland, PhD, MBA

Professor of Radiology

Nic Mastascusa, PharmD, RPh, BCNP

Chief Nuclear Pharmacist, Radiopharmacy AES at MCUC

Dan Petersen, BS, CNMT

Technical Director, Nuclear Medicine, General Nuclear Medicine AES at MCUC

Lisa Dunnwald, BS, CNMT (PET)

Technical Director, PET Imaging; PET AES at MCUC

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

Director, Office of Student Affairs

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

Director, Radiologic Technology Education

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

Director, Radiation Therapy Education

Willim Navis

Medical Imaging Supervisor, AES at VA, Iowa City, IA

Todd Steenblock, CNMT, RT(R)(N)

Director of Radiology, AES at Mercy Medical Center, Cedar Rapids, IA.

UI Carver College of Medicine, Department of Radiology, & Radiation Sciences Leadership

Denise Jamieson, MD, MPH

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

Bruno Policeni, MD, MBA

Krabbenhoft Professor, Chair and DEO, Department of Radiology

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

Vice Chair for Education, Department of Radiology

Gregory Lehmann, MHA

Clinical Department Administrator, Department of Radiology

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

Administrative Director of Radiation Sciences

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

Director, Nuclear Medicine Technology Education

Kelli Schlarbaum, MBA, BS, CNMT (PET)(CT), RT(N)

Clinical Coordinator, Nuclear Medicine Technology Education

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

Director, Radiologic Technology Education

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

Director, Radiation Therapy Education

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

Director, Office of Student Affairs