

UNIVERSITY OF KANSAS MEDICAL CENTER

NUCLEAR MEDICINE TECHNOLOGY PROGRAM

2023-2024
STUDENT HANDBOOK



WELCOME!

Nuclear Medicine Technology Certificate Program Students



GREETINGS

From the program director, medical director, faculty and staff, we would like to congratulate and welcome you to the University of Kansas Medical Center's Program of Nuclear Medicine Technology. We are happy to have you in our program.

This Policy and Procedure Handbook has been prepared to let you know what is expected and required of you and your responsibilities as a student, co-worker, and patient representative.

As your program director, I am readily available to assist in any way possible. Please feel free to contact me without hesitation. I will do everything possible to get the answers you desire.

Warm Regards,
Jamie Noble, MSc, CNMT, RT(R)(N)(CT)
Nuclear Medicine Program Director
University of Kansas Medical Center-School of Health Professions

PROGRAM DESCRIPTION

In 1993 the University of Kansas Medical Center established the Nuclear Medicine Technology Program. It is currently the only program in the state of Kansas training nuclear medicine technologists for the workforce. The certificate program is twelve months long. Prerequisites are required for the certificate program in Nuclear Medicine Technology and include certification in a related field or a bachelor's degree along with specific coursework.

The program is rigorous and includes approximately 375 hours of didactic instruction through The University of Kansas Medical Center and approximately 1300 hours of direct clinical experience obtained across the The University of Kansas Health System, Children's Mercy, and Jubilant Radiopharma.

ACCREDITATION

The University of Kansas Medical Center Program of Nuclear Medicine Technology is accredited by the Joint Review Commission for Nuclear Medicine Technology (JRCNMT).

SCHOOL OF HEALTH PROFESSIONS (SHP) AND RESPIRATORY CARE AND DIAGNOSTIC SCIENCE (RCDS) STUDENT HANDBOOK

The School of Health Professions student handbook can be found at

<https://www.kumc.edu/school-of-health-professions/academics/student-handbook.html>

The Respiratory Care and Diagnostic Science student handbook can be found at

<https://www.kumc.edu/school-of-health-professions/academics/student-handbook.html>

The student handbooks are available to inform you about services, policies, and solutions. It is the responsibility of the student to be aware of and follow KUMC-SHP specific policies found in the SHP handbook in addition to those found in the RCDS and the Nuclear Medicine Technology Program handbook.

POLICY CHANGES

The education programs of the University of Kansas reserve the right to make changes without prior notice to any of the policies stated in this manual and within the School of Health Professions manual. This manual is available on the program's Blackboard website as well as in hard copy form in the program director's office.

NUCLEAR MEDICINE TECHNOLOGY PROGRAM

Mission Statement

The mission of The University of Kansas Nuclear Medicine Technology Program is to provide quality education and promote excellence in nuclear medicine technology through clinical practice, teaching, and research to graduate qualified professionals prepared for a career in healthcare as a Nuclear Medicine Technologist.

PROGRAM GOALS

The goal of the University of Kansas Medical Center Program of Nuclear Medicine Technology is to provide an environment so the students will attain the knowledge necessary to enter the field of Nuclear Medicine as a well-trained and registry eligible Technologist.

The student will achieve this by demonstrating:

1. Use of effective interpersonal communication skills with co-workers and patients.
2. Skills to enter the field of Nuclear Medicine as an entry-level technologist.
3. Qualities necessary for motivation, dependability, accurate judgement, care for patient and the motivation for obtaining continuing education.
4. Knowledge of the "Rights of Patients" and their families.
5. Knowledge of the rights of co-workers, physicians and administrators.
6. Accurate, precise and efficient decisions in regard to patient exams and care.
7. Accurate decisions of the correct exam to be performed in regard to the information provided about the patient.
8. Aseptic Technique.
9. Accuracy in the correct radiopharmaceutical to be used for the most accurate procedure.
10. Characteristics, or how to obtain the information, of all radiopharmaceuticals used in the field of Nuclear Medicine.
11. Accuracy, precision and efficiency in the performance of clinical studies.
12. Accurate use of the various instrumentation used in Nuclear Medicine.
13. Proper radiation safety techniques.
14. Proper usage, handling and disposal of radioactive materials.
15. Quality control procedures on equipment, dose calibrators and radiopharmaceuticals.

16. Uses of therapy in Nuclear Medicine.
17. Abilities in identifying ionizing effects of radiation.
18. Adhering to the rules of the NRC and Agreement state.
19. Adhering to ALARA.
20. Proper physical and mental health.
21. Responsibility in adhering to regulations and policy procedures of the Program of Nuclear Medicine Technology, Division of Nuclear Medicine, Radiology, and the Institutional Guidelines.

PROFESSIONAL MEMBERSHIPS

Students will receive a free student membership to the Society of Nuclear Medicine Molecular Imaging (SNMMI), courtesy of SNMMI. They will have special access to journals, conferences, and special events/resources at a reduced fee.

MEETINGS

The SNMMI Missouri Valley Chapter Fall Meeting and Annual Society of Nuclear Medicine and Molecular Imaging meetings are recommended but are not required attendance by students.

ADMISSIONS POLICY

Applicants for admission to The Nuclear Medicine Technology Program should apply online at [How to apply to KU's certificate program in nuclear medicine technology \(kumc.edu\)](https://www.kumc.edu/education/graduate-programs/nuclear-medicine-technology).

NUCLEAR MEDICINE TECHNOLOGY PROGRAM DATES 2023-2024 ACADEMIC YEAR

TERM	START DATE	END DATE	BREAKS/HOLIDAYS	GRADUATION/ COMMENCEMENT
FALL 2023	August 21	December 21	Labor Day: September 4 Fall Break: October 16,17 Thanksgiving Break: November 22-26 Winter Break: Dec 22- January 1	Not Applicable
SPRING 2024	January 2	May 30	MLK: January 15 Spring Break: March 11-17	Not Applicable
SUMMER 2024	June 3	August 8	July 4	August 9

TUITION AND FEES 2023-2024 ACADEMIC YEAR

Tuition for the Nuclear Medicine Technology Program is approximately \$6000 per semester and is subject to change. The course fees, campus fees, and other costs of attendance follow the University's comprehensive fee schedule available from the KU Medical Center Office of the Registrar. <https://www.kumc.edu/academic-and-student-affairs/departments/registrar-office/tuition-and-fees/school-of-health-professions-tuition-and-fees-guide.html>. Costs are subject to change.

PROGRAM FEE	AMOUNT (APPROXIMATE)
Flat rate tuition (per semester)	\$2000
Required campus fee (Fall and Spring)	\$421.77
Required campus fees (Summer Only)	\$63
TOTAL	\$6484.77

Please see below for an estimated reference of additional program costs. Costs are subject to change.

PROGRAM FEE	AMOUNT (APPROXIMATE)
Black Program jacket/lab coat with embroidery (1)	\$50
Black scrubs (4 pairs)	\$200
Textbooks Estimate and electronic clinical tracking (Trajecsys)	\$615
Background check	\$43
Drug test	\$50
National board exams:	
ARRT:	\$225
NMTCB:	\$200
TOTAL:	~ 1383
OPTIONAL: fee-based parking	\$159-310/year

*All fees are subject to change

NMT CERTIFICATE PROGRAM COURSES

FALL (credit hours)	SPRING	SUMMER
NMED 070 (3)	NMED 080 (3)	NMED 090 (3)
Introduction to Nuclear Medicine and Medical Law and Ethics for the	Nuclear Instrumentation, and Medical Informatics, and	Seminar

Imaging Professional	Quality Assurance	
NMED071 (2)	NMED 082 (1)	NMED 091 (5)
Nuclear Chemistry and Physics	Radiopharmacy II	Clinical Procedures III
NMED 072 (3)	NMED 083 (3)	
Radiopharmacy I	Clinical Procedures II	
NMED 073 (3)	NMED 084 (10)	
Clinical Procedures I	Clinical Internship II	
NMED 074 (1)	NMED 085 (1)	
Radiation Biology and Protection	Research Methods and Health Administration	
NMED 075 (6)		
Clinical Internship I		

TEXTBOOKS

Students are required to purchase books as defined by the program. These books can be bought through the KUMC bookstore, SNMMI, or other outside sources. All textbooks should be purchased by the start date of the course they are required for.

REQUIRED TO PURCHASE:

TITLE/EDITION/ISBN /SEMESTER	AUTHOR
Practical Mathematics in Nuclear Medicine/Edition 2 /9780932004864/Fall	Wells
Nuclear Medicine and PET/CT Technologies and Techniques/Edition 9/9780323775502/Fall	Waterstram-Rich, Gilmore
Nuclear Medicine: Instrumentation/Edition 2/9781284041798/Spring	Pregekes
Radiation Protection in Medical Radiography/9th Edition/9780323825047/Fall	Statkeiwicz-Sherer, Visconti, Ritenour, Haynes
Quick-Reference Protocol Manual for Nuclear Medicine Technologists/9780932004888/Fall	SNMMI
Review of Nuclear Medicine Technology: Preparation for Certification Bolus, Glasgow Exams/ 5th Edition/9780932004956/Summer	

REQUIRED BUT AVAILABLE THROUGH THE DYKES LIBRARY RESOURCES AT NO COST TO STUDENTS-DO NOT BUY

TITLE/EDITION/ISBN	AUTHOR
Fundamentals of Nuclear Pharmacy/6th Edition/9781441958594	Saha
Physics in Nuclear Medicine/Edition 4/9781416051985	Cherry

CLINICAL LOGGING SYSTEM (TRAJECSYS)

Students are required to purchase Trajecsys through the KUMC bookstore.

This system will be used to log hours and clinical logs, competencies, assessments, and other important program information.

STUDENT ROLES AND RESPONSIBILITIES

TITLE

Student, Nuclear Medicine Technology Program

DEFINITION

The Nuclear Medicine Student will become an important part of the Nuclear Medicine Team. The student will receive didactic and on-the-job clinical training under the direct supervision of a Certified/Registered Nuclear Medicine Technologist and a Certified Nuclear Medicine Physician or Radiologist. This program is designed to provide the student with the knowledge and skills to perform accurate diagnostic and therapeutic procedures.

AREA OF TRAINING

Didactic class work will be provided through the School of Health Professions at the University of Kansas Medical Center. Clinical training will be conducted throughout The University of Kansas Health System, Jubliant Radiopharma and Children’s Mercy Hospital.

POLICIES STUDENTS ARE SUBJECT TO

Students are subject to the policies and procedures of the University of Kansas Medical Center, School of Health Professions, Program of Nuclear Medicine Technology, and the University of Kansas Health System described in the following:

KUMC School of Health Professions Student Handbook

KUMC Respiratory Care and Diagnostic Science Student Handbook

KUMC Nuclear Medicine Technology Program Student Handbook

TUKHS Policies and Procedures

TUKHS Department of Radiology Policies and Procedures

TUKHS Division of Nuclear Medicine Policies and Procedures

Students are also subject to policies and procedures provided by clinical affiliate sites outside of TUKHS.

RESPONSIBLE TO

When in the clinic, students are responsible first to their supervising technologist and then to the clinical supervisors, and ultimately to the program director. When in the classroom, students are responsible to the to the course instructor and then, again, ultimately to the program director.

RESPONSIBILITIES

1. The student will be responsible for his or her own actions. The student will be responsible to adhere to the school's policies and procedures.
2. The student will maintain a professional attitude towards but not limited to co-students, technologists, physicians, instructors, program director, and patients.
3. The student will become an integral part of the health care team. It will be their responsibility to conduct themselves in a manner that is mature and professional at all times.
4. The student will seek counsel for academic and clinical problems, which may arise throughout their training.
5. Students must accept those tasks or responsibilities delegated to them unless:
 - their personal safety and/or the safety of others would be in jeopardy;
 - the actions required are clearly unethical, illegal, or against University, Health system, clinical affiliate, or program policy.
6. Clinical time is to be used in a positive and constructive manner. Unacceptable activities in clinical and laboratory areas include, but are not limited to:
7. Eating, drinking in non-designated areas
8. Recreational drug use, or smoking
 - a. Reading unrelated material (Note: studying nuclear medicine or other medical materials is generally considered inappropriate during patient procedures. Studying may be done during "down time" and only with the permission of the supervising technologist).
 - c. Inappropriate conversation with patients or coworkers.
 - d. Congregating in the vicinity of a patient for purposes other than instruction or assigned clinical duties.
 - e. Personal activities (e.g., crossword puzzles, computer games, surfing the net, making personal phone calls, texting, answering personal emails).

STUDENT WORK AND EDUCATION POLICY

Students are **not** allowed to work as a nuclear medicine technologist or in a nuclear medicine department while enrolled in the program. Any student found to be working as a nuclear medicine technologist prior to program completion will be immediately dismissed from the program and therefore not eligible for certification.

Students should notify the program director if they are planning to take additional classes or work outside of the program. If engaging in these roles outside the program while attending this program the recommendation from the Advisory Committee is that students should not work more than 20 hours per week outside of the 40 hours per week dedicated to the program. The NMT educational program should take priority and the program schedule and requirements will not change to accommodate student's work or educational commitments outside the program.

SPECIAL QUALIFICATIONS OF THE NUCLEAR MEDICINE TECHNOLOGY STUDENT

The Nuclear Medicine Technology Student must have manual dexterity, visual acuity, sufficient hearing and speech, and good physical coordination in positioning patients and operating nuclear medicine equipment.

1. Students must have ***full utility of arms, hands, and fingers*** to perform examinations and operate equipment. Sufficient strength, motor coordination, and manual dexterity is necessary to assist patients and other technologists with patient transfers and for the physical transportation of mobile equipment (e.g. collimator carts, lead shields, sheet sources).
2. ***Visual acuity*** is necessary for performing diagnostic and therapeutic procedures by producing, assessing, and processing nuclear medicine exams.
3. ***Hearing and speech*** need to be sufficient to communicate effectively and efficiently with all customers (i.e., patients, patient's family, co-workers, physicians, and all other members of the health care team).

CLINICAL ROTATIONS

Students will typically be scheduled 10-hour days during clinical assignments unless otherwise stated. Rotation schedules will be shared by the Program Director.

Clinic days are typically Monday-Thursday, with make-up days typically scheduled on Fridays. Clinical rotations will be 6:30 AM until 5:00 PM unless otherwise stated. There will be an opportunity for students to be involved in a rotation to a local radiopharmacy to see operations after hours. This rotation will be optional for students.

Clinical hours and days are subject to change.

Clinical Rotation Assignments

The clinical training in the program consists of a series of clinical rotation content areas. Every student rotates through a repeated sequence of scheduled clinical rotations. The rotations are established so that each student is assigned to a single room (unless otherwise specified) and supervised by a board-certified technologist or radiopharmacist. The University of Kansas Health System staff rotate daily on their assignments. This enables a student to work with multiple preceptors over the course of their assigned rotation.

Rotation experiences and student performances are monitored by the clinical supervisor at each institution, supervising technologist, as well as the Program Director. Rotation assignments may be modified as needed to address noted deficiencies/competencies of specific students. This is only done by direction of the Program Director. Students may only move from their assigned rotation to another one, with permission from the Program Director to perform a specific procedure and/or receive a clinical competency.

STUDENT SUPERVISION POLICY (CLINICAL)

During clinical internship assignments, students will have specific requirements and expectations for supervision, either indirect or direct. All students participating in clinical assignments must be assigned to a preceptor/registered technologist who will have primary supervisory responsibility for the student while performing all nuclear medicine imaging procedures and all radiopharmaceutical administrations. Only one student should be assigned to each supervising technologist (1:1 Ratio).

Direct Supervision:

A student is required to perform all nuclear medicine imaging procedures under direct immediate supervision until they have achieved and documented successful completion of a competency exam for a particular procedure.

** Note that all radiopharmaceutical or pharmaceutical administrations must be directly supervised, regardless of the student's competency status.

Parameters of Direct Supervision:

1. A registered nuclear medicine technologist reviews the procedure request and condition of the patient in relation to the student's level of clinical competence.
2. The supervising technologist is present during the radiopharmaceutical administration and imaging procedure to offer advice and assist the nuclear medicine student as needed
3. The supervising technologist reviews and approves all nuclear medicine procedure images including computer processing techniques prior to radiologist review

Indirect Supervision:

2. After achieving and documenting successful completion of a competency under direct supervision, the student may perform that particular procedure under indirect supervision.

Indirect supervision means the supervising technologist is immediately available to assist the student should any difficulty arise. Immediately available means that the technologist is present adjacent to the room or location where the procedure is being performed.

Note that procedure protocols vary between clinic sites. Therefore, if a competency examination has been completed on a procedure at a different site, the supervising technologist should evaluate the student's competency at performing the same type of procedure at the technologist's site before allowing the student to perform the procedure under indirect supervision.

Parameters of Indirect Supervision:

1. A registered nuclear medicine technologist verifies the student's ability to perform under indirect supervision
2. The student evaluates the procedure request, patient condition, and if necessary consults with the supervising technologist
3. The student performs the nuclear medicine procedure under indirect supervision
4. The supervising technologist reviews and approves all nuclear medicine procedure images including computer processing techniques prior to radiologist review
5. No provisions are made for performing the following nuclear medicine procedures under indirect supervision. Direct supervision guidelines must be followed regardless of the student's level of clinical competence:
 - a. Brain Death Studies
 - b. Sedated studies (sedation portion of exam)
 - c. Therapies

CLINICAL ORIENTATION OBJECTIVES

The student will receive a copy of the orientation objectives for each clinical rotation the first time they are assigned to that assignment. This will be given to the student during the week of Orientation and/or prior to the beginning of the rotation.

CLINICAL OBJECTIVES

The student will receive a copy of the objectives/expectations for each Clinical Internship course. This will be given to the student during the first week of each semester and should be reviewed.

CLINICAL LOGS

Each student will maintain clinical logs daily for every QC and hot lab procedure and patient exam they have observed or performed. They will rate each study on a scale of 1, 2, 3, 5.

Level 1: *Observation only*

Level 2: *Minimal participation*

The student must take part in the completion of the procedure. Students should review procedure manual, help with equipment and assist throughout the exam.

Level 3: *Active participation/minimal supervision*

The student must actively take part in the completion of the procedure. The supervising technologist may offer advice, add information to patient explanations, and assist with minor positioning and set up issues. The majority of the exam should be completed under direct supervision with limited support.

Level 5 : *Total responsibility for procedure/observational supervision only*

The student must complete the procedure with indirect supervision only. This level should be logged when a competency is successfully passed or when an exam is performed after competency.

These logs should be kept up to date weekly on Trajecsys Clinical Management and Tracking System. Failure to keep logs updated will result in a loss of 2% per week of the student's Clinical Internship grade. These logs will be checked each Friday. Falsifying information,

including but not limited to clinical hours, patient exams, level of completion, is not tolerated, and may lead to dismissal from the program.

CLINICAL ASSESSMENT

Student's clinical performance is evaluated by two primary methods:

1. Clinical Competencies
2. Student Clinical Performance Evaluation

CLINICAL COMPETENCIES

Each student must pass competency in all mandatory clinical procedures and specified elective procedures, unless otherwise specified in Competency List. Students must let the supervising technologist know they would like to perform a competency prior to the procedure beginning. A Clinical Competency Evaluation Form should be filled out by the supervising technologist.

In order to pass the clinical competency, the student must complete the procedure with observational/indirect supervision only. The staff member is to provide no assistance to the student. The exception is ventilation lung scans in which assistance holding the mask and moving the patient may be necessary. If the supervising staff member feels the need to step in to avert a compromised study, the supervising technologist will do so, and the procedure cannot be signed off as approved.

Immediately after the student has completed a procedure at any given proficiency level, they must have the supervising staff member fill out a Clinical Competency Evaluation Form in Trajecsys. It is generally assumed that a competency cannot be completed until a student has documented in the clinical logs that they have performed a study at the following levels: 1-3.

STUDENT CLINICAL PERFORMANCE EVALUATION

1. All clinical rotations share a common set of professional learning objectives. A student's clinical performance is evaluated by the clinical preceptor by filling out the clinical performance evaluation form at the end of each clinical rotation. Students obtain one average evaluation score each rotation with the goal of learning from previous weeks and improving over time.

2. A student will be rated on their performance based on specific professional performance standards. The following characteristics are used as a grading metric.

- a. Initiative
- b. Quality of Work
- c. Communication
- d. Critical Thinking/Decision Making
- e. Respect for others
- f. Rules/Safety
- g. Self-Improvement and Adaptability

In addition to the above characteristics, a global rating score is given for the overall performance exhibited during the clinical rotation. A Negative behavior report is completed by the clinical preceptor based on their observation of the student during the rotation.

4. It is the responsibility of the student to review the evaluation with the Program Director and/or supervising technologist and sign off to indicate its acceptance and review.

5. All evaluation forms are filed on Trajecsys.

DIDACTIC AND CLINICAL GRADE REQUIREMENTS

The main objective of the Nuclear Medicine Technology Program is to graduate competent qualified professionals prepared for a career in healthcare as an entry level Nuclear Medicine Technologist.

All program courses and clinical assignments are directly related to the profession. Students are required to maintain high performance in didactic and clinical courses.

The student is expected to maintain a **75 percent or greater** in each didactic course. If a student drops below 75 percent in the course or on any **one test**, they will be given a verbal and written warning with possible additional remedial work. The Program Director and/or Instructor of the course will determine the appropriate remedial work. The additional work will not affect the current grade; however, the student must demonstrate satisfactory understanding of the course material to continue in the program. If a student drops below 75 percent on any **second test** they will be placed on academic probation and will continue being assigned remedial work. If a student receives a final course grade below 75 percent in **any didactic course** the student will be subject to dismissal from the program.

The student is expected to maintain **80 percent or higher** in Clinical Internship I, II, and III. The student will be placed on clinical probation if they fall below 80 percent in any Clinical Internship course. If the student receives a final course grade below 80 percent in **any Clinical Internship course** the student will be subject to dismissal from the program.

STUDENT ACADEMIC EVALUATIONS

1. Students will receive a copy of the syllabus identifying necessary objectives for each course.

2. The evaluation system is consistent with the objectives. Assessments such as assignments, labs, and a variety of testing methods: multiple choice, true/false, short answer, matching, and essay are used at the discretion of the instructors to reliably measure achievement.

3. It will be to the discretion of the instructor what specific means of assessments to utilize for each course.

4. Instructors maintain an attendance and grade record for each course. This record is reviewed and maintained by the Program Director upon completion of each course.

5. The grading scale is as follows:

Letter	Percentage
A	90-100
B	80-89
C	70-79

D	60-69
F	Below 60

6. The Program Director is primarily responsible for student counseling regarding progress in the program.

1. Students are continuously encouraged by the Program Director to schedule individual instruction when necessary.
2. The faculty of the Nuclear Medicine Technology Program provides proper guidance for the student through the entire program period. A system of due process for review of unfavorable evaluations, disciplinary actions and suspension, and dismissal is provided and established according to University, Departmental, and Health System Guidelines.

PROGRESS REPORTS

The Program Director will meet with each student at least once each midsemester throughout the program to review current academic and clinical standings. Disciplinary status will be reviewed if applicable along with attendance and timeliness issues. In addition, student self-assessment will be discussed to include strengths, weaknesses, and improvement areas. An improvement plan will be agreed upon if applicable.

DISCIPLINARY, SUSPENSION AND DISMISSAL POLICIES

A student can be terminated or dismissed for unprofessional conduct, failure to follow University and/or program policies and/or rules, and failure to maintain stated didactic and clinical performance requirements. Disciplinary measures or suspension can also occur for any of the above.

Disciplinary actions can include but are not limited to; a reduction in grade(s), lengthening or repeating of clinical education, reduction of holiday time, exclusion from participation in any specified student privilege, and/or exclusion from classes.

Suspension or dismissal will follow formal counseling with the Program Director. A student will receive a warning before formal counseling; however, a serious deed of misconduct does not warrant an oral statement prior to formal counseling.

Disciplinary counseling is progressive and occurs in the four stages listed below.

1. Informal counseling
2. Formal counseling
3. 3-day suspension with missed time to be made up on designated days off
4. Dismissal from the program

ATTENDANCE

A student's daily attendance is important to maintain satisfactory didactic and clinical performance. Students that miss excessive didactic courses typically find it hard to keep up

with the material as this 12-month program moves at a fast pace. Missing exceptional amounts of clinic time will lead to students finding it difficult to acquire the exams needed to fulfill their clinical education requirements.

BREAKS/HOLIDAYS

Pre-determined days off for breaks and holidays are scheduled throughout the program’s duration. The specific dates are listed below. Students are encouraged to plan vacations, appointments, and other personal related commitments during these provided times.

FALL SEMESTER	WINTER BREAK	SPRING SEMESTER	SUMMER SEMESTER
September 4	December 22-31	January 15	July 4
October 16-17		March 11-17	
November 22-26			

PERSONAL DAYS OFF (PDO)

The student will be allotted 5 personal days off during the program.

Personal days off (PDO) may be utilized for **unscheduled absences** (illness, personal emergency, funerals, military leave, and jury duty)

The disbursement of PDO is listed below per semester.

Fall: 1 day

Spring: 2 days

Summer: 2 days

Unused time from one semester CAN be carried over to the next. A negative time-off balance on record at the end of a semester MUST be made up by the end of semester. Failure to make up any and all time owed will result in a clinical grade of “incomplete”. Students will not be able to begin their coursework for the next term or graduate until the incomplete grade has been successfully addressed. Students should plan vacations around the planned program breaks and holidays and utilize the PDO bank for unavoidable incidences that result in having to take time off.

SCHEDULED AND UNSCHEDULED ABSENCES

Classroom

1. It is the student’s responsibility to notify the Program Director to report missing class for illness or other personal emergencies. Notification must be received no later than 60 minutes prior to the beginning of the scheduled class. Failure to call or email in a timely manner will result in the student receiving an unexcused absence for that day. Students are required to

leave a message on the phone mail system of the Program Director and email in the event they do not answer.

2. In addition to calling off, students must document their absence by completing a PDO Request form in Trajecsys and logging their time off.

3. Students requesting time-off for non-emergent reasons (funeral, military leave, jury duty) should pre-schedule PDO with the Program Director by the end of their shift or class at least one (1) day prior to the requested time off. Students should complete a Personal Day Request form in Trajecsys and inform the Program Director as soon as the form has been submitted to ensure prompt review.

4. It is at the discretion of the course instructor(s) to set a specific attendance policy for his or her class which may or may not include attendance requirements associated with final course grades (e.g., points for attendance, points deducted for failure to attend, and/or a set reduction of final grade based on the number of absences from class).

5. No make-up work is allowed unless arrangements are made by the student with the instructor prior to the scheduled assignment, presentation, quiz, or test due date. Please remember that if you do miss class it is your responsibility to find out what info you missed from the instructor.

Clinic

1. It is the student's responsibility to notify the Program Director and Clinical Supervisor (AES) to report missing clinic for illness or other personal emergencies. Notification must be received no later than 1 hour prior to the beginning of the scheduled assignment. Failure to call or email in a timely manner will result in the student receiving an unexcused absence for that day. Students are required to leave a message on the phone mail system of the Program Director and email in the event they do not answer. If the clinical site does not answer the student is to leave a message. If a message system is not available, the student should follow up with the Program Director.

2. In addition to calling off, students must document their absence by completing a Personal Day Request form in Trajecsys and logging time off.

3. Students requesting time-off for non-emergent reasons (funeral, military leave, jury duty) should pre-schedule PDO with the Program Director by the end of their shift or class at least one (1) day prior to the requested time off. Students should complete a Personal Day Request form in Trajecsys and inform the Program Director as soon as the form has been submitted to ensure prompt review.

4. Students whose whereabouts are unknown to their scheduled supervisor(s) (e.g., technologist-in-charge, program director, clinical coordinator) will be considered inappropriately absent, unexcused and in violation of their programmatic responsibilities. Students whose whereabouts are unknown during scheduled clinic time will have the day in question subtracted from their total clinic time log and will be required to make-up the entire day of clinic (10 hour shift).

FUNERAL LEAVE

Excused absence for funerals must be approved by your Program Director and will then be noted as an excused absence. PDO should be used for this time. Once PDO is depleted, then the student must make up the time.

MILITARY/JURY DUTY

Excused absence for military and jury duty must be approved by your Program Director and will then be noted as an excused absence. PDO should be used for this time. Once PDO is depleted, then the student must make up the time.

APPOINTMENTS

Students need to schedule personal, doctor and other appointments on their own time (i.e., scheduled day off, holidays, breaks).

MEDICAL LEAVE

A leave of absence may be granted through the Academic Accommodations office. <https://www.kumc.edu/office-of-integrity-and-compliance/ada-compliance/academic-accommodation-services.html>.

Missed time will need to be made up. A certificate of completion from the program will be granted once scheduled time is made up.

TARDINESS

Students are required to be in their assigned clinical or didactic area and fully prepared to begin the daily clinical or class/lab assignments prior to or by their designated starting time. Students should be aware that falsifying attendance records is grounds for immediate dismissal.

1. Students are expected to arrive for clinic and classes on time and to report back to their clinical rotation immediately after scheduled absences (e.g., lunch, class).
2. Incidence of tardiness in clinical rotations will be noted by the supervising staff technologist on the student's weekly clinical performance evaluation form. Course instructors will keep track of tardiness on their class attendance records.
3. Chronic tardiness (as listed below and as determined at the discretion of the program's Advisory Board) will not be tolerated and is considered grounds for disciplinary action including dismissal from the program.
4. Exceptions to this policy will be at the program director's discretion and will be limited to unforeseen events.

Tardiness will be governed by the following limits and corresponding corrective actions:

- 1-3 results in verbal warning
- 4 results in written counseling
- 5 results in final written counseling

- 6 results in trigger for dismissal from program

MAKE UP TIME (CLINICAL)

Students are expected to make up missed clinical time (with the exception of approved PDO days) within the same semester the absence occurred. It is highly recommended the student plans to make up time as soon as possible in order to not get behind on competencies and missed time.

UNEXCUSED ABSENSE(S)

1. Unapproved or inappropriate absences from either clinic or class will be considered an unexcused absence. They are a violation of program policy and are grounds for disciplinary action. All unapproved absences (including failure to notify staff or course instructors of whereabouts during the day) will be rectified by deducting a full day of PDO from the students' bank. In the event the student does not have available PDO time, they must make up a full day of clinic (if unexcused absence occurred on clinic day) or complete an assignment assigned by the program director (if absence occurred on class day). Students will not be allowed to graduate from the program with negative totals in their PDO bank. Owed time will have to be made up by the end of the semester the unexcused absence occurring. If the unexcused absence occurs in the summer semester it is likely the student will have to come in after the scheduled graduation date and delay them taking national boards.

Unexcused absences will be governed by the following limits and corresponding corrective actions:

- 1ST unexcused absence results in written counseling
- 2nd unexcused absence results in final written counseling
- 3rd unexcused absence is automatic grounds for dismissal from the program

CONDUCT

All students are expected to exercise good judgement and discretion in performance of duties.

1. Personal matters must be conducted on personal time removed from your job area and job responsibilities.
2. All patient information is confidential. Any deviation in this matter will be cause for immediate disciplinary action.
3. Student and employee records and information are confidential, and it is contrary to department policy to release any information regarding department personnel via phone inquiry, unauthorized written general request, and/or social media. Rigid protocol exists for protection of student privacy, and all inquiries regarding any student (whether currently employed or formerly employed) should be referred to student services. More information is at <https://www.kumc.edu/academic-and-student-affairs.html>
4. ID badges must be worn while on KUMC, TUKHS, or other clinical affiliate site campuses.

5. Each student is expected to maintain a neat and orderly work area and to assume responsibility for equipment in the area to which they are assigned. All rooms need to be stocked throughout and at the end of the day.

6. Students are expected to maintain the condition of any materials used or borrowed (e.g. textbooks, brochures, lab supplies, classroom spaces, clinical spaces)

STUDENT PARKING

The program does not provide parking. There are several lots students can park in. Some lots are free depending on space availability. Parking is also available on a fee basis. There are waiting lists available. Questions regarding parking should be addressed to KU Medical Center Parking Services at 913-588-5175. Register a vehicle at <https://kumc.parklpr.com/Login/AccountLogin?ReturnUrl=%2F>

For all other clinical rotations, parking information will be provided from the program director and/or clinical affiliate contact prior to rotation.

TRANSFER POLICY

The Program of Nuclear Medicine Technology, due to the twelve-month intense training period, will not accept advanced placement for students who have already attended part of another Nuclear Medicine Technology Program. All coursework and competency requirements must be completed while a student of the currently enrolled KUMC-SHP NMT program.

LIBRARY

Students have access to visit the Dykes Medical Library in person or by use of their online resources.

There is a small NMT Program library located in the Program Director's office in the Student Center-2007. Students should not remove books without the approval of the Program Director.

LOCKERS

Lockers are available for use and assigned to students by the Program Director during orientation.

RADIATION MONITORING

1. Students must abide by the Radiation monitoring and safety policies for each clinical affiliate site they visit.

2. Students must attend orientation lecture of radiation safety by the Radiation Safety office of TUKHS.

3. Students must wear their body badge and ring dosimeters at all times while attending clinic or while participating in labs where radiation is present.

4. Lost badges or rings should be reported immediately to the program director so that a spare can be issued. Each loss of a badge will result in a deduction of the students Clinical Internship grade for the appropriate semester.

5. Students must apply the principles of time, distance and shielding to minimize radiation exposure to themselves, their coworkers, and the patients.
6. A record of monthly and cumulative exposure will be reviewed each month with the student, signed by the student, posted on Blackboard, and ultimately placed in a permanent file with the Radiation Safety Office.
7. Pregnancy -- See "Pregnancy Policy."
8. Students with previous radiation exposure (i.e., Radiologic Technologists) must provide cumulative radiation exposure records to the program director when they begin the program.

LUNCH/BREAKS

All students will receive a 30-minute lunch break unless otherwise specified. Lunches will be scheduled around class and patient care.

HOUSING

Students are responsible for their own room & board, living expenses and transportation.

DRESSCODE/PROFESSIONAL APPEARANCE

Students are expected to conform to the dress code requirements listed below while attending clinical internship and didactic courses for the program unless otherwise specified.

Inappropriately attired students will be sent home for the rest of the day by the course instructor, program director, or by the responsible clinical affiliate supervisor. Make-up time must be scheduled and approved by the program director for any time lost.

Uniforms

1. Black scrubs
2. Program specified jacket
 - Must be worn at all times in the clinical setting and whenever radiation is present
2. Scrubs should always present a clean and pressed appearance.
3. No T-shirts, hoodies or fleece may be worn.
4. Costume jewelry, such as bracelets or large earrings, is not acceptable as professional uniform attire.

Shoes

1. Shoes and socks/hose are required; tennis shoes or nursing shoes are allowed.
2. Shoes and shoelaces are to be kept polished and clean, respectively.
3. Shoes must be closed toed

Radiopharmacy (Jubliant Radiopharma)

1. Students will be provided disposable lab jackets provided by the site when rotating through the local radiopharmacy
2. Students will wear black scrubs and shoes to this assignment as specified above

Grooming

1. Cosmetics, especially eye make-up and perfume, if used, should be used in moderation.
2. Hair should be kept clean and neat. Hair below the shoulders must be pulled back while in clinic.
3. Fingernails should be clean and groomed and acrylic or other artificial nails are not allowed.

ID Badge:

1. Student identification badge is to be worn at all times when the student is attending class/labs on KUMC campus or attending clinical internships/labs on TUKHS campuses or other clinical affiliates.
2. Badge should be worn in a location that is easily seen.

TELEPHONE/PERSONAL ELECTRONIC DEVICES

1. Personal phone calls should be on an emergency basis only or on the student's own time.
2. Absolutely no personal long-distance calls should be made from the Department of Radiology.
3. Personal phones, laptops, tablets, and other electronic devices should be put away during clinical assignments unless approval is given from the supervising technologist.
4. Personal phones, laptops, and tablets are only to be used in class with approval of the instructor and for course purposes only.
5. If the student is concerned they will need to be contacted for emergency purposes, they should discuss with the program director in order to set a plan to be notified that will not disrupt learning in the class or patient care setting.

OVERTIME

Students do not receive financial compensation if they stay beyond their established program time. Compensatory time off will be designated at the discretion of the Program Director .

GRADUATION

Students are not guaranteed to graduate on the projected graduation date. All graduation requirements must first be met. Additional time past that date may be required in order to ensure that a student has met the criteria is outlined below.

1. Satisfactory completion of all didactic and clinical internship portions of the NMT curriculum (44 Credit hours)

2. Demonstrated competency in all required and elective procedures listed in Clinical Internship Syllabi.
3. Adherence to the policies described in this Student Handbook (i.e., attendance, dress code, professional conduct, etc.).
4. A grade of 75 or better in all NMT program-related didactic courses and 80 or higher in all Clinical Internship courses.
6. The continual maintenance of a professional attitude and demeanor.
7. Fulfillment of all financial obligations to the University of Kansas Medical Center and the Nuclear Medicine Technology Program.

At the end of the program and upon completion of the above requirements, the student is awarded a certificate from the University of Kansas Medical Center. Each graduate is eligible to sit for entry level exams for the NMT through the the American Registry of Radiologic Technologists Nuclear Medicine Technology Certification Board and the Nuclear Medicine Technology Certification Board.

INJURIES OR EXPOSURES

In case of an accident or potential exposure to blood and body fluid or other biohazardous substance , notify the supervisor onsite at the clinical affiliate location and the program director. Report to Student Health in the Student Center Building, or designated alternative department, such as Emergency Room, during non-business hours.

Any student who has a concern about an exposure is encouraged to contact Student Health for information and appropriate testing, 913-588-1941. The program must be notified of an accident or exposure as soon as prudently possible but attend to treatment and testing first.

Students will be instructed on the appropriate KUMC Infection Control procedures during clinical orientation before the beginning of clinical rotations.

Note for detailed copy of official Blood and Body Fluid Exposure protocol please contact your Program Director or Student Health web site: <https://www.kumc.edu/academic-and-student-affairs/departments/student-health-services/policies-and-procedures/needle-stick-or-other-exposure.html>

STUDENT PREGNANCY POLICY

The National Council on Radiation Protection (NCRP) advises that control measures should be taken to avoid or reduce risk of ionizing radiation exposure to the human embryo or fetus. It should be noted, however, that the risks probability of detectable effects induced by medical diagnostic exposure are very small. All pregnant students in the Diagnostic Radiology Programs must make the final decision as to their acceptance or non-acceptance of this minimal risk. The NCRP currently states that the dose equivalent to the embryo and fetus should be limited to 0.5 rem during the entire gestation period. Based on the above information, the following guidelines are suggested:

1. Upon confirmation of pregnancy, the student should immediately notify the Program Director. General program policies will be reviewed in detail in order to provide the student with a complete understanding of her status in the program.

2. The student should, upon confirmation of pregnancy, seek counsel with the Medical Physicist in the Department of Radiology and/or the Radiation Safety Officer of the Medical Center relating to her recent exposure history, acceptable exposure levels, and radiation protection procedures. It is recommended the student enrolls in the Fetal Monitoring Program as soon as they are aware they are pregnant. Please see a-d below for information on the Fetal Monitoring Program.

- a. Any pregnant radiation worker who wishes to enroll in the Fetal Monitoring Program will need to notify the Radiation Safety Office in writing using the form "Declaration of Pregnancy" of her pregnancy with an estimated conception or due date. The fetal dose from the date of conception until the date of declaration will be estimated. Exposure limits for the remaining allowable dose will be set at that time.
- b. A fetal monitoring badge will be provided to the Declared Pregnant Woman (DPW) as soon as practical. The fetal monitoring badge is to be worn at the waist versus the standard whole-body badge that is worn at the collar or chest. If a lead apron is utilized, the fetal badge is worn under the apron and the whole-body badge outside the apron at the collar.
- c. The exposure levels for fetal monitoring badges will be closely evaluated throughout the entire gestation period by the RSO. Should the fetal ALARA level be exceeded, the DPW will receive immediate notification.
- d. The student will notify the RSO when to discontinue the fetal badge.

3. The pregnant student should seek the advice and counsel of her attending physician. The pregnant student must follow the established program policies and meet the same clinical and didactic criteria as all other students before graduation and recommendation for the national certifying examinations.

The pregnant student will follow the same guidelines that are set for making up missed excused absences.

If the student decides to remain in the Nuclear Medicine Program during her pregnancy, she accepts full responsibility for her actions and releases the University of Kansas Medicine Center and its faculty of any responsibilities in case of adverse effects.

STUDENT RECORDS

The following individual student records are confidential and maintained in a secure area. Each student may review his/her own records at any time in the presence of the Program Director. Written request must be made by the student to the Program Director for copies of the records to be sent to any individual or institution.

The student file will include but is not limited to:

1. Transcript (retrieved from KUMC)

2. Radiation personnel monitoring records (Retrieved from TUKHS Radiation Safety)
3. Records of academic counseling or advising
4. Time logs/attendance (as of 2023, online- Trajecsyst and Blackboard)
5. Records of disciplinary action
6. Competency checklist record (as of 2023, online-Trajecsyst)
7. Clinical Evaluation scores/gradebook(as of 2023, online-Trajecsyst)
8. Application checklist

FACULTY

Jamie Noble, MS, CNMT, RT(R)(CT)(N)

Program Director , KUMC NMT Program

Wendell Yap, MD

Medical Director/TUKHS Nuclear Medicine Physician/Radiologist

Kay Dreiling, RT(R)(N), CNMT

AES, Lead Nuclear Medicine Technologist, TUKHS Bell Hospital NM Department

Angela Barton, CNMT

Course Instructor, Research Technologist, TUKHS

Greg Wegst, PhD

Course Instructor, Physicist, DTC

Audrey Wegst, Ph.D.

Course Instructor, Physicist, DTC

ADVISORY COMMITTEE

The advisory committee is a group of individuals that counsel and guide the Program of Nuclear Medicine Technology Program. This committee is made up of the following people:

Jamie Noble, MS, CNMT, RT(R)(CT)(N)

Program Director, KUMC/TUKHS

Wendell Yap, M.D.

Program Medical Director, Nuclear Medicine Physician/Radiologist

James Traylor, CNMT

Quality Manager, TUKHS

Kay Dreiling, RT(R)(N), CNMT

AES, Lead Nuclear Medicine Technologist, TUKHS Bell Hospital NM Department

Thomas Miller, CNMT, RT(N)

AES, Nuclear Medicine Technologist, TUKHS Westwood Campus

Joe Huber RPh,

AES, Radiopharmacist Jubliant Radiopharma, Outside Facility

Missy Stump, BS, PET, CNMT, RT(R)(N)

AES, Education Coordinator for Imaging Service, Children's Mercy Adele Campus

Micha Bazemore MHS, RDMS, RVT

Program Director, Didactic Instructor, KUMC DUVT Program

Lisa Trujillo, DHSc, RRT

Respiratory Care and Diagnostic Science Vice Chair, KUMC

Nicole Holifield, MSW, MLIS

Respiratory Care and Diagnostic Science Administrative Officer, KUMC

Melissa Rockford, BA, RT(R), CNMT, NCT

Radiation Safety Specialist, TUKHS