

Joint Program in Nuclear Medicine Technology Student Handbook

Welcome to the Worcester State College/University of Massachusetts Medical School joint program in Nuclear Medicine Technology, founded in 1977. All NMT students are either undergraduate or post baccalaureate students enrolled at WSC. WSC is accredited by the New England Association of Schools and Colleges, UMass Memorial Medical is JCAHO-accredited and affiliated with the University of Massachusetts Medical School.

In addition to meeting the general education and administrative requirements of these institutions, the NMT Program consists of a specific curriculum outlined in this handbook. This curriculum follows recommendations of the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) and the Curriculum Guideline presented by the Society of Nuclear Medicine. This program is a JRCNMT-approved program.

NMT didactic and clinical training at UMass Medical School and UMass Memorial focuses on radiation safety, instrumentation, radiopharmacy, diagnostic imaging, patient care, education and management, therapeutic applications, and limited *in vitro* studies. Since the clinic is often involved in various clinical trials, students are encouraged to research and participate in these with the technologists.

Students completing the NMT Program are prepared to pass the national entry-level NMT certification exams given by the Nuclear Medicine Technologist Certification Board (NMTCB) and the American Registry of Radiological Technologists (ARRT-N). Students will meet all Commonwealth of Massachusetts licensing requirements. This program has provided Central Massachusetts and southern New England with a number of high quality graduates, who also find employment from Maine to Florida to Hawaii. Many graduates have chosen career paths that include medical or veterinary school, physician assistant and other graduate programs.

Length of Program:

For full time undergraduate students at WSC, the NMT program is a concentration part of the courses leading to a bachelor's degree in one of the general sciences. Typically the NMT specific courses are taken in the junior and senior year. Options are available for sophomores and fifth year undergraduates.

The postgraduate certificate students complete all program requirements in 12 months at UMass and affiliate hospitals.

Registration, Finances, Grades:

Students enroll at WSC, pay all tuition and fees at WSC, and receive all grades through WSC. Upon successful completion of the clinical and didactic training at UMass, students receive a certificate from UMass and are known as registry-eligible technologists.

Clinical Assignments:

In addition to training at UMass Memorial Medical Center—University Campus, students will also receive training at UMass Memorial Medical Center—Memorial Campus. Currently, St. Vincent Hospital at Worcester Medical Center, Boston Children's Hospital, Elliot Hospital in Manchester NH, and Boston Medical Center are all affiliate major training sites. Students may also spend up to 10 days at non-affiliate hospitals. Although UMass Memorial offers a complete range of modern nuclear medicine imaging and therapy services, students are encouraged to explore technical, managerial, and organizational styles at other institutions.

All students will receive training in radiopharmaceutical preparations at UMass by our radiopharmacist. In addition to clinical training and evaluation by technologists, students must be signed off on clinical competencies by the UMass program coordinator.

UMass campus resources:

- 1 dual head whole body scan
- 1 dual head SPECT/WB scanner with PCD capability and STEP for low ,medium energy
- 1 single head planar camera with pinhole collimator
- 1 uptake probe/well counter
- 2 triple head SPECT cameras with STEP
- 1 triple head LFOV variable angle SPECT/STEP/PCD /WB system
- Integrated computer/LAN linking all cameras and remote viewing stations
- In house radiopharmaceutical preparation
- Limited in-vitro testing
- Therapeutic procedures
- Clinical research protocols

Memorial campus resources: uptake probe, SPECT, whole body

Minor Affiliates:

UMass Memorial Medical Center--Memorial Campus, UMass Memorial--Marlborough Hospital, UMass Memorial—Health Alliance Hospitals (Leominster Campus), Holyoke Hospital, Massachusetts General Hospital, Harrington Memorial Hospital, Milford-Whitinsville Regional Hospital

Student General Information

1. Student Insurance:

A. Health--Students must meet WSC requirements with regards to health insurance.

UMass employee health services will charge for any use other than the initial free allied health clearance.

B. Liability--Students are required to purchase and show evidence of at least \$1,000,000 of professional and/or personal liability insurance coverage during clinical training. The clinical coordinator provides applications.

2. Health Clearance:

All students participating in clinic activities must meet the UMass Allied health student general health clearance requirements. This includes a brief physical at no cost to the student, which must be scheduled before the start of clinical training.

3. Radiation Monitoring Devices

All employees and students in the nuclear medicine department wear body and ring badges at all times in the clinic or lab. Monthly reports are to be reviewed and histories included in student files. Any questions or concerns about any incidents or potential exposures should be addressed immediately to the clinical coordinator or the immediate supervisor in the clinic.

4. Accidents

Any accidents or potentially unsafe situations involving students, employees, patients, or equipment should be reported immediately to the clinical coordinator or immediate supervisor in the clinic. This includes any questions about imaging or ancillary equipment. Should any student or employee receive a needle stick, notify the clinical coordinator or immediate clinic supervisor immediately. The UMass infection control service will be contacted immediately and the individual will be directed to the Emergency Department triage area for evaluation and treatment if necessary.

5. Pregnancy

Any student who may be pregnant while in clinical training must notify the clinical coordinator and meet with the radiation safety officer. Pregnancy does not preclude training but it is the individual's responsibility to declare or to undeclare a pregnancy in writing. Pregnant employees (who receive greater radiation exposure than students) may routinely work through pregnancies within certain restrictions designed to limit radiation exposure to the fetus.

6. Dress Code

Reasonable and proper attire is expected of all students and employees. Dress neatly and conservatively and comfortably. You will be spending long days mainly standing while in the clinic and you will be actively involved in moving heavy equipment and assisting patients. All students will wear white lab coats with allied health student ID tags. Radiation monitoring devices will be worn at all times while in clinic or lab. Protective disposable gloves are necessary in clinic and lab for many tasks. No open toe footwear is allowed due to safety concerns. Comfortable shoes for the concrete floors are recommended. No jeans or T-shirts are allowed.

7. Conduct

Students are expected to conduct themselves in a professional manner that is conducive to proper patient care. It is important to remember that when you are in the clinic wearing the white jacket, you represent the department and the hospital to patients and their families, friends, caregivers. Students should maintain a professional manner with all staff in the department. The Nuclear Medicine Program reserves the right to dismiss any student who is involved in any activity not considered professional or conducive to proper patient care. All program students shall:

1. Report to the clinical assignment in an alert condition in the proper and complete uniform.

2. Maintain a professional attitude when in the presence of other students, staff technologists, program faculty, physicians and patient
3. Follow all safety policies that are set by the NMT Program and the clinical site that one is assigned to.
4. Strive to contribute to effective management of departmental workload.
5. Keep all patient and/or staff records/data confidential
6. Not sleep during a clinical assignment
7. Not engage in theft from the clinical site or patients
8. Not engage in immoral conduct as defined by the NMT Program and the college student handbook
9. Not engage in habitual or excessive tardiness and/or absences from clinical assignments
10. Not be in possession of weapons, drugs, or alcohol, nor engage in their use during clinical assignment. The program complies with State and Federal regulations in regards to the previous.
11. Not smoke in area's where it is prohibited during clinical assignment
12. Not eat in area's that not specifically designated for that purpose.
13. Not to use the clinical equipment/supplies, including telephone for personal use.
14. Not to loiter in the Nuclear Medicine Department at times not specified for clinical assignment.
15. Not refuse to accept assignments by the Education Coordinator, commensurate with their capabilities, or take direction from an individual designated by the Education Coordinator.
16. Not leave their assigned area within the Nuclear Medicine Department without approval. Lunches and breaks will be assigned by the education coordinator or designed supervisor.
17. Not leave their patients unattended while undergoing a procedure
18. Not punch in or otherwise fill in the attendance record of another student
19. Not to accept any type of tip and or gratuity from a patient or a patients family
20. Not to use a cellular phone in the Nuclear Medicine Department or in areas of hospitals where it is posted not to do so.

8. Vacations, Holidays

Students are allowed all WSC holidays and maintenance days. Please note that the clinic is open for many of these days, especially semester breaks and students are encouraged to attend clinic even when classes are not held. Students follow the WSC inclement weather policy. Note that the clinic will always be open during WSC "snow days" and students may opt to attend clinic on such days if it is safe to travel.

9. Attendance

Attendance is expected of all students. The instructors will announce requirements for their courses at the beginning of each semester. Exams will be announced at least one week in advance. Students with valid reason for missing a scheduled exam should discuss their situation with the instructor. During clinical training, students may arrange hours to coincide with scheduled clinic hours (7AM to 5 PM at UMass). Unless otherwise stated, beginning students are to report at 7AM for daily QC training. Any student who is going

to be absent or late must contact the clinical coordinator by phone or email. Failure to call in by 7:15AM will result in loss of 1 point each occurrence from clinical grade that semester. Tardiness will be monitored. (A five-minute grace period is allowed if not abused.) Please note that the clinical staff must complete their assignments in a timely manner and cannot delay their startup time. This is most awkward in the very beginning of the program. Persistence and dependability will earn their trust and you will soon be planning tasks with them. Excessive tardiness shall be defined as three episodes per semester. Upon the third occurrence, disciplinary action shall be initiated as outlined in the policy dealing with category II violations.

Each student will be permitted three (3) unexcused absences annually

First additional (4th) unexcused absence=first offense

Second additional (5th) unexcused absence=second offense (suspension)

Third additional (6th) unexcused absence=dismissal

Excused absences for illness will be permitted with documentation from the student's health care provider. These absences will not be subject to disciplinary action or demerits, but the student will be expected to make up the missed time in order to fulfill the educational experience scheduled during their absence.

10. Breaks and Smoking--Lunch schedules will be assigned at the discretion of the Education Coordinator or designee when on clinical assignment. This policy also applies to student smokers who must leave the department in order to smoke in designated areas outside of the hospitals. Clinical education coordinators are not required to allow for smoking time beyond the regularly scheduled break, or lunch.

11. Clinical Leave

- A. Bereavement- in the event of a death of an immediate family member, the student will be allowed three (3) consecutive days. Immediate family include mother, father, sister, brother, spouse, child, grandparent and members of the spouses immediate family.
- B. Jury Duty: the student will be excused in this event to fulfill their civic duty. Students will provide official documentation of having completed such duty for the time period absent from classes.
- C. Illness/Injury: If a person is out for three days or more, they shall present to the educational coordinator written verification of the students illness and assessment in some severe injury cases of the students ability to continue the program.
- D. Military: This will be granted in accordance with state and federal laws in regards to such leaves. When the student returns the program of study may be extended to meet attendance requirements.

(Sick days are allowed at the rate of 10 per year. If any student has personal or family health problems that require other consideration please discuss these with the educational coordinator, program director, or clinical coordinator.)

In summary, the attendance policies are designed to be more similar to those of an employee than a student. Since good dependable students make good dependable employees, it is in everybody's best interest to have excellent attendance.

12. Daily Log Sheets

Students will keep log sheets of all clinical procedures observed, including level of participation. These will be discussed at the beginning of the program. Many students prefer to make short journal type entries. These often serve to trigger appropriate class discussion of procedures and their applications. Submit log sheets to the clinical coordinator on a weekly or monthly basis. It is imperative that you complete your time sheets.

13. Procedure checklists, evaluation forms

As students progress through the stages of observation to participation, various forms will be used to document involvement as well as to assess proficiency. These will be discussed and distributed. Students are encouraged to have the staff technologists complete many of these forms. Many will be a simple "go" or "no go" checklist to highlight current strengths and areas needing attention. Evaluation forms allow more detail of specific as well as general skills. The same forms may be used at various stages of the program but the student is evaluated according to their current time of evaluation. Final competency forms such as required by the ARRT must be completed by the educational coordinator or appropriate designated technologist. Competencies are to be scheduled with the appropriate personnel responsibility for the study. Ample evaluation forms are at the back of this handbook.

14. Hours Requirements

Students in the NMT program will spend 40 or more hours per week in the clinic and classroom combined. As students progress, the clinic hours may be completed during any normal hours of the assigned clinic site. Students are strongly encouraged to attend clinic during WSC semester breaks or holidays. Final semester students may occasionally arrange to accompany staff technologists for "on call" experience nights or weekends. (There is no overtime credit for clinical hours.)

Although total clinical hour requirements have been dropped from 1900 to below 1500, this is directly related to individual student ability and confidence. Some students will be able to complete final competencies sooner than others. Some will be encouraged to seek additional practice before attempting some final competencies.

Since program specific didactic courses consume most of the Tuesday and Thursday hours in fall and spring, students may spend extended time in the clinic on the other days. Whenever possible, any general requirements at the WSC campus should not interfere with clinical training. There are a very few exceptions that are recognized as unavoidable.

The didactic course work schedule may vary in the summer sessions but in the fall, all didactic courses in the NMT program are on Tuesdays and Thursdays at UMass. No

students are allowed to take any courses at WSC (or elsewhere) that conflict with the NMT didactic classes.

All NMT students are strongly encouraged to take the Radiation Biology course, which is generally in the spring at WSC according to instructor availability. Another highly recommended course is the three-dimensional anatomy course offered as part of the radiological technologist program at nearby Quinsigamond Community College.

15. Discipline/Dismissal

In order to promote professional behavior and to ensure the safety of all patients and co-workers, students will be expected to adhere to all rules and regulations in this manual. Due to the potential severity of some behavior/actions, a student may be immediately dismissed from a clinical site and or the program without prior warning. These unacceptable behaviors are listed as Category I violations. Any student who does not follow the rules and policies as described in this manual and or listed under Category I or II, will be subject to the disciplinary process as described in the disciplinary section.

Category I Violations

1. Obtaining, possessing, selling, or using any illegal narcotic or alcohol on hospital premises. Reporting to the clinical education setting under the influence of any of these.
2. Theft, abuse or destruction of property or equipment of any patient, visitor, student, hospital employee or the hospital.
3. Disclosing confidential medical information about patients, students, or hospital employees without proper authorization
4. Immoral, indecent, illegal or unethical conduct while on hospital premises.
5. Possession of weapons, wielding or threatening to use firearms, illegal knives, etc. while on hospital premises
6. Assault on any patient, visitor, student or hospital personnel.
7. Misuse, falsification or removal of patient student or hospital records without proper authorization.
8. Abusive and or negligent treatment of a patient
9. Plagiarism or cheating
10. Failure to comply with criteria set as a result of probation status
11. Three consecutive failures in any didactic classroom exams or in clinical evaluations

Category II Violations

1. Engaging in disorderly conduct and or unprofessional behavior that could ultimately threaten the physical well being of any patient, visitor, student, or employee, including rough or careless movement of a patient, being argumentative, displaying anger or other belligerent behaviors.
2. Leaving the clinical area without first informing the supervising staff member.
3. Sleeping or failing to be alert and prepared during clinical hours.

4. Restricting or impeding the clinical output through lack of organizational skill or inability to follow department protocols.
5. Insubordination and or the refusal to obey order issued by any supervisor of the clinical education setting
6. Repeated and or excessive unexcused absences or tardiness
7. Falsification of any program of or hospital related document or inducing another individual to do so.
8. Violation of safety rules and regulations or failure to use safety equipment required.
9. Unauthorized use of hospital supplies and or equipment.
10. Failure to follow program and departmental radiation protection policies.
11. Failure to provide adequate patient care and comfort.
12. Performing a procedure without appropriate supervision.
13. Inappropriate dress and/or appearance based upon program regulations.
14. Loss or regression of clinical skills
15. Inability to apply positioning and/or imaging principles to the clinical environment.

Grounds for Dismissal:

Academic: Failing course average less than 73.0(C) in any NM course, plagiarism, cheating.

Clinical: First time infraction of any item listed under category I violation, third infraction of any category II violation.

Discipline Process: Any student disregarding the preceding rules/regulations shall be addressed in the following manner:

1. First offense Category II
 - verbal warning and documented
 - student will sign document to acknowledge verbal warning
 - Program director will meet with student
 - Document is placed in students file.
2. Second offense Category II
 - suspension of three days
 - documentation of the incident, which is signed by the student to acknowledge the suspension.
 - the student must meet with the program director during the suspension.
 - Upon return of the student from suspension, the student is placed on probation, and the student must schedule the time to makeup time lost.
3. Third offense: Dismissal

Clinical Probation: Students whose clinical skills are less than satisfactory or whose behavior is contrary to the professionalism that is set forth by the JRCNMT, ARRT,

CNMT or the advisory board members of the U Mass/ Worcester State Nuclear Medicine Technology Program and have been counseled and offered remediation for their specific issues may be placed on clinical probation to remedy the situation. A student placed on clinical probation is in grave jeopardy in regards to completing their clinical assignments for the completion of the program requirements and shall be expected to make extraordinary efforts to achieve compliance with program requirements or seriously re-evaluate their choice of an education and a career in nuclear medicine technology. Specific circumstances likely to initiate probationary status include, but are not limited to:

- Failure to make acceptable progress in their clinical skills
- Regression of clinical skills on exams previously considered competent
- Failure to progress in effective communication with patients and or other health care personnel
- Unable to apply principles learned in class to clinical evaluations.
- Second occasion of policy infraction.

Probation Process

The clinical education coordinator will maintain documentation of student infractions, counsel the student on specific deficits and offer remediation for student improvement. When and if such actions fail to achieve the expected results the clinical education coordinator will inform the Program Director of the intent to place a student on probation. The coordinator will document the specific violations and or incidents leading to this point and outline specific criteria for the student to meet within a specified time frame and review the form with the student. The student must agree to the conditions in order to maintain their clinical assignments. The student must meet with the program director immediately after being informed of this change in their clinical status. If the student objects to the probation they may request an appeal process before the advisory committee.

Probation Violation

A student's failure to comply with the agreed probation criteria shall be dismissed from the clinical education site and if not accepted by another clinical site shall be unable to complete the program.

Appeal Process:

Category II violations may be appealed within three days of dismissal. At that time the student may present their case to the advisory board. If the student wins the appeal they are on probation for 60 days at which time the program director will review the students performance.

Academic Standards

Students must follow the general academic requirements of WSC as well as maintain good standing in the NMT program. All students will strive to avoid the following situations:

1. Warning: A student will receive an academic warning if his/her academic performance at the end of eight weeks is equivalent to a 69 average or less. A student will also receive an academic warning if he/she receives a grade of less than 65 on more than one exam in any one of the NMT courses taught at UMass. The UMass NMT grading scheme follows the WSC guidelines.
2. Dismissal: If a student fails to achieve a final grade of C or better in any of the NMT courses, the student will be subject to review for continuance by the program coordinators at WSC and UMass. Due process will be according to the WSC guidelines.
3. Elective Withdrawal from the program: If a student elects to withdraw from the program, he/she should confer with the program coordinators at WSC and UMass. Students may apply for readmission to the program.
4. Clinic Evaluations: technologists and the educational coordinator will evaluate Students during each clinical rotation. A student competency evaluation is based on individual abilities to complete required procedures appropriate to their point in time in the program. Continuous proficiency and understanding must be demonstrated as the student progresses through the program. A student must achieve a grade of 80% or better on each evaluation or repeat the evaluation after further training. The educational coordinator or appropriate designated technologist must perform final competency evaluations. Any failed or missed competencies must be completed satisfactorily in order to graduate. Students must complete all program requirements to be eligible for national certification and state licensing.

Libraries

Students are encouraged to utilize the library resources at both UMass and WSC. There will be small group and individual orientation sessions scheduled through the UMass library. Since the Nuclear Medicine Department and Educational Coordinator must assume responsibility for all NMT students at UMass, any damages or losses must be reconciled before students are allowed to graduate. Students will receive personal access codes for library services including on line database searches. There are current journals and textbooks available in the Nuclear Medicine Department. Students may borrow books for up to two weeks. Any losses or damages must be reconciled before graduation. The department also has a high-speed copier that can be used for program needs free of charge. The student is also to sign up for free membership to the Society of Nuclear Medicine, materials from this organization are part of the assignments for certain classroom study.

Course Descriptions

The following are brief descriptions to be supplemented by individual course syllabi provided by instructors. All course have WSC course numbers and students enroll through WSC. All of these courses are taught at UMass. Final grades are reported through WSC.

BI 461- Clinical Practicum I (Nalivaika, CNMT, Zackary CNMT, Asst RSO, others)
Summer Session I, M-F 7:00AM- 3:30 PM

This is the first practicum course geared to teaching the basics of patient care and instrument testing and use. Students are oriented to the hospital and department and begin to develop basic skills such as simple patient monitoring and positioning for exams. Students initially study and practice quality control procedures on a variety of imaging and non-imaging equipment before assisting in imaging procedures. Students also complete the radiation safety section offered by the UMass Asst. Radiation Safety Officer. Didactic course content supports this early exploration of new equipment and patient interaction.

Main topic areas include:

CPR Certification

IV Certification

Hospital Procedures and Policy

Radiation Safety and Protection

Quality Control

History of Nuclear Medicine

Limited Patient Care, Interviewing

Patient Positioning

Introduction to patient ethics

BI 462- Clinical Practicum II (Nalivaika, others) Summer Session II, M-F

This course focuses largely on clinical skill development so that students progress from mostly observation to active participation in routine diagnostic procedures. Students demonstrate proficiency in Basic CPR, phlebotomy, BP measurement so that they may confidently rotate through the cardiac section. Students develop interview skills and patient education skills as they learn more about the clinical protocols. Students also begin to rotate to the Memorial and Medical City sites as well as radiopharmacy.

PY 451- Nuclear Instrumentation I (M. King, Ph.D.) Fall Tues & Thurs 3-5 PM

This course is designed to develop the theoretical and operative skills necessary for the application of modern instrumentation in the practice of nuclear medicine. Basic radiation physics and a survey of radiation detectors will be covered.

Topics include:

Atomic Structure

Electromagnetic Radiation

Nuclear Structure and Stability

Modes of Radioactive Decay

Radioactive Decay Law

Gas and Scintillation Detectors

Classroom discussion is supplemented with clinical and lab demonstrations.

CH 465- Clinical Nuclear Medicine Technology I (Nalivaika, Simkin MD) Fall Tues & Thurs AM

This course ties in the anatomy and physiology, radiopharmaceutical biodistribution, as well as normal and abnormal pathology of diagnostic nuclear medicine procedures. The proper utilization of procedures and their modifications are discussed. Students present cases and learn to positively critique their clinical work.

Topics include:

- Myocardium Perfusion Imaging
- ETT and Pharmacological Stress
- Cardiac Blood Pool Imaging
- Bone Imaging and Bone Density Measurement
- Thyroid Imaging and Functional Measurement
- Lung Ventilation and Perfusion Imaging
- Renal imaging and pharmacological intervention

BI 463 and BI 464- Clinical Practicum III and IV (Nalivaika, technologists) Fall and Spring, M-F

As students become proficient in performing routine diagnostic procedures, they will schedule evaluations with the technologists as a prelude to proficiency “competencies” with the education coordinator. Students will also rotate through the radiopharmacy where the radiopharmacist will evaluate them. Students are expected to progressively improve the completeness and accuracy of their work, striving for independence and efficiency as well as further understanding of the diagnostic and therapeutic utilization of nuclear medicine procedures. The main study areas will be outlined in course syllabi and follow the groupings as in the required text (cardiac, orthopedic, endocrine, etc.) The ARRT (N) criteria will also be met. Students may also choose short visits at non-training sites in the spring semester to explore other work environments and service delivery systems.

CH453 - Radiopharmacy (D. Hnatowich, Ph.D.) Fall Tu & Th 1-3 PM

This course is roughly half lecture and half laboratory. Main topic areas include properties of ideal radionuclides for imaging or therapy as well as production techniques; growth and decay equations and basic chemistry and analytical techniques for the radiopharmacy, regulations and record keeping; quality control of radiopharmaceuticals. The laboratories, their reports, and reviews reinforce the lecture material.

PY452- Nuclear Instrumentation II (King) Spring Tu & Th 3-5 PM

The second half of the instrumentation courses continue to help the student understand the operation and calibration of the scanning and counting equipment. Other topics include digital computers and an introduction to magnetic resonance imaging theory and computed tomography

Main Topics include:

Solid State Detectors

Counting Statistics
Radiation Detection and Counting Systems
External Radiation Detection and Imaging
Various Imaging Systems, QC
Image Quality, Image Recording, Analysis of Imaging Systems
Tomography, SPECT and PET

CH 466- Clinical Nuclear Medicine Technology II (Nalivaika, Simkin MD, guests)
Spring Tu & Th AM

Remaining topics not completed in CH465 are covered. PET and CT are also areas that are studied in regards to clinical practice. Additionally, students will present cases that they have performed and researched, including correlation with other diagnostic techniques. A term paper is assigned at the beginning of the semester and then developed into a short slide presentation for delivery to a group of peers. Finally, students prepare for the national certification exams offered by the NMTCB and ARRT as partial qualification for state license as a nuclear medicine technologist.

Course Sequence

For all undergraduate students, the following course sequence is followed:

Jr. year

Summer Session I	BI461
Fall	PY451
Spring	PY452

Sr. year

Summer session II	BI462
Fall	BI463
	CH453
	CH465
Spring	BI464
	CH466

For Post Baccalaureate certificate students (and certain fifth-year undergraduates), the entire program content is condensed into one year, with no material omitted:

Summer I	BI461
Summer II	BI462
Fall	BI463
	CH453
	PY451
	CH465
Spring	BI464
	PY452
	CH466

Also strongly recommended: Radiation Biology normally offered at WSC in spring semester. Cross Sectional Anatomy normally offered at Quinsigamond Community College in spring semester.

Administrative

1. WSC/UMMS NMT Management Board

Student representation on the NMT Management Board may be an elected or shared duty. The Board meets at WSC or UMMS according to the convenience of the board. Student input to the board is vital for such functions as advice on curriculum, resources, training experience, recruitment, and program modifications to benefit students. All students also help during the year to host various student visitors to UMMS as well as occasionally visit local schools.

2. Students are eligible for student level membership in the Society of Nuclear Medicine, New England Chapter.

3. Professional Conduct: Please refer to the ASRT and other versions of professional ethics supplied and discussed by the education coordinator. Students are encouraged to share experiences and training to help all serve our broad patient population in a manner most appropriate for each individual and their family.

4. Ancillary Opportunities: There are often special programs at WSC or UMMS of interest to our students that may overlap some clinical hours. As long as these programs do not take students out of scheduled classes on Tuesday and Thursdays, students may rearrange clinical hours within reason. Students attend many of the hospital Grand Round lectures on various topics and attend local continuing education lectures

5. ARRT Pre-Application Process

Any student accepted in the nuclear medicine technology program and who has a misdemeanor or felony is strongly advised to complete the ARRT pre application process to determine their eligibility to take the ARRT exam, upon the completion of the program. The process can be initiated at any time by accessing the pre application review form by calling the ARRT at (651) 687-0048 ext.544, or from the "Ethics" section of their web site, www.arrt.org. Early action with this matter is recommended to avoid delay of ARRT eligibility upon completion of the program or to re access ones enrollment in the program. The same pertains to the NMTCB (Nuclear Medicine Technology Certification Board)

Patient Rights and Caregiver Responsibilities

Please note the following excerpt taken from the “Patient Rights and Responsibilities” brochure:

On Privacy: “In the outpatient unit, you should be able to talk with your doctor, nurses, or other professional or administrative officer in private and know that the information you supply will NOT BE GIVEN TO OTHERS NOT INVOLVED IN YOUR CARE WITHOUT YOUR PERMISSION.”

“As an inpatient, you should be able to talk with your doctor, nurses, and other health professional or administrative officer in private and know that all medical information will be kept confidential. No person or agency BEYOND THOSE CARING FOR YOU can have access to the information without your specific permission.”

This confidential information includes diagnosis, type of treatment, response to treatment, medical and nursing notes, etc. No students should be reading a patient’s medical record unless they are directly involved in that patient’s care. Patient information should only be discussed with members of the health care team including medical interpreters and in a way so as to protect patient privacy. No patient information can be discussed outside of the department except in closed classrooms.

In addition, all patients and their families are to be treated respectfully and with consideration of any cultural needs. Protect the rights of all patients and their families, friends just as you would wish to have your rights protected.

NMT Code of Ethics (from SNM)

Principle 1- the nuclear medicine technologist should provide service with compassion and respect the rights of the patient.

Principle 2- the nuclear medicine technologist should hold in strict confidence all privileged information concerning the patient.

Principle 3- the nuclear medicine technologist should comply with the laws and regulations governing the practice of medicine.

Principle 4- the nuclear medicine technologist should be responsible for competent performance of assigned duties.

Principle 5- the nuclear medicine technologist should strive continuously to improve knowledge and skills.

Principle 6- the nuclear medicine technologist should not engage in fraud or deception.

Principle 7- the nuclear medicine technologist should be willing to assume responsibility to participate in activities that promote community and national response to health needs.

Scope of Practice: You are students in a nuclear medicine technology program; you will identify yourselves as such. Lab coats will be worn; personal radioactive monitoring devices will be worn. If you step outside of the scope of practice disciplinary action or termination may take place.