DELAWARE TECHNICAL COMMUNITY COLLEGE

NUCLEAR MEDICINE PROGRAM

PROGRAM MANUAL
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Welcome to Delaware Technical Community College's Nuclear Medicine Technology (NMT) Program.
The following Program Manual provides policies and guidelines for the student to successfully complete
the NMT curriculum. While the first year provides a vast knowledge of supplementary math, science and
support courses, the second year will consist both of clinical and didactic instruction.

Due to the unique clinical training of working in hospital laboratories with patients, radioactivity and
departmental equipment, the responsibilities of the student are heightened. The design of this manual
will help you to become familiar with the Nuclear Medicine Department and the Nuclear Medicine
program. It is your responsibility to adhere to these policies and guidelines to offer competent and
professional services to both the physicians and most importantly the patients.

PROGRAM FACULTY:

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Anne Smith, B.S.
Riverside Medical Arts Complex
Allied Health Education Program Administrator
Anne.Smith@christianacare.org
302-320-4590
COLLEGE MISSION STATEMENT

DELWARE TECHNICAL & COMMUNITY COLLEGE

MISSION STATEMENT

Students are at the center of everything we do.

We empower students to change their lives through comprehensive educational opportunities and supportive services. As the state's only community college, we provide quality education that is accessible, relevant, and responsive to labor market and community needs while contributing to Delaware's economic vitality. We value all individuals and provide an inclusive environment that fosters equity and student success.

MISSION GOALS

The College will achieve its mission through the goals listed below:

- Academic programs will prepare students for successful employment upon completion and/or transfer to a senior institution.
- Developmental education will prepare students in mathematics, reading, and writing to be successful in entry-level College courses and workforce training.
- Workforce training and professional development programs will prepare and support a competitive workforce.
- Personal enrichment programs will provide lifelong learning opportunities for the community.
- Programs, activities, and services will create a welcoming and inclusive environment that promotes respect for diverse cultures, backgrounds, and points of view.
- The College will provide an environment that cultivates student learning and success.
- Public and private resources will be sought, obtained, and utilized to advance the College Mission and Goals.

ADVISORY COMMITTEES

The College encourages the use of advisory committees to make sure that the programs are up to date. The committees are composed of altruistic, knowledgeable citizens with expertise in business, industry, government, education, and health-related fields. Committee members meet periodically with department chairpersons, instructors, and deans. They review curricula, arrange internships for students, and help the staff to assure that graduates will be fully equipped for immediate entry into career fields.
PROGRAM GOALS

The goal of the DTCC Nuclear Medicine Program is to offer a comprehensive program to qualified students, who upon graduation with an Associate of Applied Science degree are prepared to sit for the examination administered by the Nuclear Medicine Certification Board and/or the American Registry of Radiologic Technologists and perform as entry level technologist.

Nuclear Medicine Program Graduate Competencies (PGC’s)

1. Integrate principles of theoretical knowledge and demonstrate entry-level skills pertaining to nuclear medicine in-vivo and in-vitro procedures, radiation safety, quality control, quality assurance, NRC regulations, patient care, radiopharmaceutical preparation and administration, instrumentation and medical informatics.

2. Perform all entry-level procedural computer analysis.

3. Exhibit professional behaviors, critical thinking and problem-solving skills during the practice of nuclear medicine.

4. Abide by the profession’s code of ethics as stated in the American Registry of Radiologic Technologists (ARRT) and Nuclear Medicine Technology Certification Boards (NMTCB).

5. Competently perform all in-vivo and in-vitro procedures.

6. Exhibit verbal, nonverbal, and written communication skills during patient care, research, and professional scope of practice.
**CURRICULUM**

The following curriculum is delivered each year. All first-year courses must be completed prior to the second-year clinical internship. Course descriptions are published in the college catalog as well as distributed to each student prior to course commencement. The courses are sequenced to ensure a gradual progression in technical and clinical knowledge. Please note that the program major courses (NMT) may **not** be taken out of sequence.

<table>
<thead>
<tr>
<th><strong>Summer Semester</strong></th>
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<tbody>
<tr>
<td>SSC 100 First Year Seminar</td>
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<tr>
<td>BIO 100 Medical Terminology</td>
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<td>CHM 110 General Chemistry</td>
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<td>ENG 101 Composition I</td>
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<td>MAT 162 Statistical Reasoning</td>
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<td>PSY 121 General Psychology</td>
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<tr>
<th><strong>Fall Semester</strong></th>
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<tbody>
<tr>
<td>BIO 120 Anatomy &amp; Physiology I</td>
<td></td>
</tr>
<tr>
<td>CHM 111 Intro to Organic &amp; Biochemistry</td>
<td></td>
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<tr>
<td>NMT 101 Patient Care for the NMT</td>
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<tr>
<td>PHY 112 Physics for Allied Health</td>
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<thead>
<tr>
<th><strong>Spring Semester</strong></th>
<th></th>
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<tbody>
<tr>
<td>BIO 121 Anatomy &amp; Physiology II</td>
<td></td>
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<tr>
<td>ENG 102 Composition and Research</td>
<td></td>
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<tr>
<td>NMT 115 Intro to Nuclear Medicine with Clinical Lab</td>
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<tr>
<td>NMT 222 Nuclear Physics</td>
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<table>
<thead>
<tr>
<th><strong>Summer Semester</strong></th>
<th></th>
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<tbody>
<tr>
<td>NMT 201 Nuclear Medicine I</td>
<td></td>
</tr>
<tr>
<td>NMT 224 Radiopharmacy &amp; Pharmacy</td>
<td></td>
</tr>
<tr>
<td>NMT 295 Clinical Internship I</td>
<td></td>
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<tr>
<td>SOC 213 Ethical Issues in Health Care</td>
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<tr>
<th><strong>Fall Semester</strong></th>
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<tr>
<td>NMT 202 Nuclear Medicine II</td>
<td></td>
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<tr>
<td>NMT 211 Scan Reading I</td>
<td></td>
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<tr>
<td>NMT 223 Nuclear Medicine Instrumentation</td>
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<tr>
<td>NMT 296 Clinical Internship II</td>
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</table>

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<tr>
<th><strong>Spring Semester</strong></th>
<th></th>
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<tr>
<td>HLH 215 Cardiovascular Monitoring</td>
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<tr>
<td>NMT 203 Nuclear Medicine III</td>
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<tr>
<td>NMT 212 Scan Reading &amp; PET/CT</td>
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<tr>
<td>NMT 297 Clinical Internship III w/ CT</td>
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Books are to be purchased through DTCC's bookstore prior to each semester. The books used for the Program Major courses are listed below. Support courses' book requirements will be announced by individual instructors.

FALL Semester (1st year)


SPRING SEMESTER (1ST year)


SUMMER Semester (2nd year)


FALL Semester (2nd year)


SPRING Semester (2nd year)

Computed Tomography for Technologists; A comprehensive text, 2nd Edition, Lois E. Romans, Lippincott, Williams, & Wilkins

Fundamentals of Sectional Anatomy; An Imaging Approach Workbook, Denise L. Lazo, Pub. Thomson Delmar Learning
NUCLEAR MEDICINE ORGANIZATIONS

Students are encouraged to become members of professional organizations.
Information will be provided by the Program Coordinator upon request. Students can apply for membership to the following professional organizations:

1. **Society of Nuclear Medicine & Molecular Imaging**
2. **Delaware Valley Society of Nuclear Medicine Technology**
3. **Delaware Society of Radiology Professionals**
4. **American Society of Radiologic Technologists**
5. **Joint Review Committee in Nuclear Medicine Technology** – Accreditation Agency

REQUIREMENTS FOR GRADUATION AND REGISTRY ELIGIBILITY

All academic requirements must be satisfied by each student.

- Students must maintain a grade of C (2.0) or higher in each course to qualify for graduation and the registry exam(s).
- Attendance is mandatory, no more than twenty percent of each didactic or clinical course can be missed.
- All required clinical competency procedures must be passed with a minimum of 70 percent.
- All scheduled clinical hours must be completed prior to the beginning of the next semester.
- Any student who has a felony or misdemeanor charge and conviction on their record is required to disclose that information to the College.

Application for the boards will be verified by the program coordinator only after all designated diagnostic and therapeutic procedures are completed according to the ARRT requirements.

For ARRT board requirements please see attached link [www.arrt.org](http://www.arrt.org).
Code of Ethics: For the Nuclear Medicine Technologist*

Nuclear Medicine Technologists, as Certificants of the health care profession, must strive as individuals and as a group to maintain the highest of ethical standards.

The Principles (SNMTS Code of Ethics) listed below are not laws, but standards of conduct to be used as ethical guidelines by nuclear medical technologists. These Principles were adopted by the Technologist Section and the Society of Nuclear Medicine at the 2004 Annual Meeting. They are standards of conduct to be used as a quick guide by nuclear medicine technologists.

Principle 1: The Nuclear Medicine Technologist will provide services with compassion and respect for the dignity of the individual and with the intent to provide the highest quality of patient care.

Principle 2: The Nuclear Medicine Technologist will provide care without discrimination regarding the nature of the illness or disease, gender, race, religion, sexual preference or socioeconomic status of the patient.

Principle 3: The Nuclear Medicine Technologist will maintain strict patient confidentiality in accordance with state and federal regulations.

Principle 4: The Nuclear Medicine Technologist will comply with the laws, regulations, and policies governing the practice of nuclear medicine.

Principle 5: The Nuclear Medicine Technologist will continually strive to improve their knowledge and technical skills.

Principle 6: The Nuclear Medicine Technologist will not engage in fraud, deception, or criminal activities.

Principle 7: The Nuclear Medicine Technologist will be an advocate for their profession.

- NMTCB Code of Ethics
- ARRT Standards of Ethics
The following policies have been established for the Nuclear Medicine Program. The purpose of establishing program policies is to:

1. Ensure a fair and equitable educational experience for all students.

2. Establish acceptable levels of professionalism.

3. Comply with accreditation requirements.

All students are required to become familiar with and comply with all policies contained in this manual as well as the DTCC College Handbook and Allied Health Programs and Science Student Handbook. Failure to comply with Program policies will result in adherence to the Discipline Policy.
CLINICAL AFFILIATE INFORMATION

Medical Director: Hung Q. Dam, M.D.

Christiana Care Health System
Christiana Hospital
Theresa Riggle, BS, CNMT, RT(N)(CT)
Nuclear Medicine Manager
Kathryn Mullins, BS, CNMT, RT(CT)
Sr. Nuclear Medicine Technologist
4755 Ogletown-Stanton Road
Newark, DE 19805
Telephone # (302) 733-1530
Fax # (302) 733-1518

Helen F. Graham Cancer Center & Research Institute Christiana Care
Theresa Amend AAS, CNMT, ARRT(N)(CT)
Senior Nuclear Medicine Technologist
4701 Ogletown Stanton Rd
Newark, DE 19713
Telephone # (302) 623-4311
Fax # (302) 623-4356

Union Hospital Christiana Care
Shelly Farris, AAS, CNMT
Senior Technologist
Nuclear Medicine Dept.
106 Bow Street
Elkton, MD 21921
Telephone # (443) 406-1834
Fax # (443) 406-1373

Wilmington Hospital Christiana Care
Dominique Fleming, AAS, RT(CT), CNMT
Nuclear Medicine Technologist II
501 W. 14th St.,
Wilmington, DE 19801
Telephone # (302) 320-2177
Fax # (302) 320-4071

Bayhealth Medical Center – Kent General Hospital
Erik Stauff, AAS, CNMT
Lead Technologist
Nuclear Medicine Dept.

640 S. State Street
Dover, DE 19901
Telephone # (302) 744-7057
Fax # (302) 744-6264

Veteran’s Affairs Medical Center
Eduardo Kirton, AAS, CNMT
Staff Technologist,
Nuclear Medicine Dept.
1601 Kirkwood Highway
Wilmington, DE 19805
Telephone # (302) 633-5315
Fax # (302) 633-5490

Nemours Hospital for Children
Allyson Steward, MS, CNMT, RT(N)(CT)(BD)
Lead Technologist, Nuclear Medicine Dept.
1600 Rockland Road, P.O. Box 269
Wilmington, DE 19803
Telephone # (302) 651-4681
Fax # (302) 651-4626
SCHEDULED CLINICAL TIMES*

Christiana Hospital
   (2nd Shift)
   7:00 - 3:30
   8:30 – 5:00
   10:00 – 6:30 p.m (if approved)

Christiana Care Helen F Graham Cancer Center
   7:00 – 3:30

Wilmington Hospital
   7:00- 3:30

Nemours Hospital for Children
   7:00 - 3:30

Veteran’s Affairs Medical Center (VA)
   7:00 - 3:30

Kent General Hospital - Bayhealth Medical Center
   7:00 - 3:30

Union Hospital
   7:00 – 3:30

*Clinical times may be adjusted to provide successful completion of procedural competencies upon approval from the Clinical Instructor and staff technologist.

HOSPITAL PHONE NUMBERS

Allied Health Program Office (Riverside) (302) 320-4590

Christiana Care Main Campus
   General (302) 733-1533
   Cardiac (302) 733-1539
   PET (302) 733-3818
   Helen F. Graham Cancer Center (302) 623-4311

Wilmington Hospital (CCHS) (302) 320-2177
Nemours Hospital for Children (302) 651-4681
VA Hospital (302) 633-5315
Kent General Hospital (302) 744-7057
Union Hospital (443)-406-1834
CLINICAL EDUCATION

POLICIES:

1. Students observe, assist and perform procedures in conjunction with technologists in all aspects of in vivo and in vitro nuclear medicine procedures.

2. A certified nuclear medicine staff technologist is designated as the student’s clinical instructor while in the clinical setting; responsible to evaluate, assess and give clinical feedback pertaining to the student’s daily progress. Clinical proficiency is based upon preset objectives for each clinical rotation.

3. Students will perform procedures and skills under the DIRECT supervision of a technologist, instructor or physician. All clinical facility paperwork must be either counter signed by the technologist or solely signed by the technologist. A student may not submit questionnaires, radiopharmaceutical preparation kits or blood volume forms with only their signature or initials.

4. Procedures observed, assisted and/or performed must be documented in the Daily Log sheet in Trajecs. All procedure logs must be completed by the end of the scheduled day via Trajecs.
   a. Failure to submit Procedure logs daily will result in a 1-point deduction per day from the clinical rotation grade (max 5 pts./week) and the discipline policy will be implemented.

5. All Procedure Competency evaluation forms must be assigned to the technologist via Trajecs the day the competency is performed.

6. Under no circumstance can a student hand in, send a patient's scan to the physician for review, dismiss an outpatient, or send an inpatient back to their room without first having the technologist review the images.

7. Requesting Clinical Rotation Evaluations is the responsibility of the student. Clinical Rotation Evaluation requests must be emailed to the technologist via Trajecs at least 1 week prior to the last day of the clinical rotation. In addition, an email must be sent to the Clinical Coordinator documenting this request and to which technologists will be evaluating the student. (Failure to request Clinical Rotation evaluations by email will result in a zero for that clinical site rotation)

8. Clinical grades are based upon technical performance, appearance, attendance, radiation protection, injection technique and professionalism.
   a. At any time during a clinical rotation, a student may be quizzed or tested on clinical procedures or skills. Such evaluation mechanisms will be included in the student’s clinical internship grade.

9. Clinical hours will be recorded via Trajecs. The student is responsible for clocking in and clocking out of their clinical rotation shift daily. Failure to document clinical hours will result in a 1 point/day deduction from the rotation clinical grade. Over usage of continuous time exceptions or repeated lateness will initiate the discipline policy (Please see disciplinary policy)
   a. Incomplete/non-submittal of clinical hours will be considered time off from the clinic and invoke the attendance policy requirements.
   b. If a student is off using PTO hours, documentation via Trajecs is still required.

10. Each student is allotted 8 hours of personal time per semester during clinic. All time missed from the clinical rotations beyond 8 hours must be made up according to guidelines found in the Clinical Make-up Time policy of this program manual.
11. It is the student’s responsibility to follow proper call-off procedures for any missed time from clinic or didactic courses. Failure to do so will result in a 2-point deduction off of the student’s Final grade.

12. Failure to effectively communicate with the clinical coordinator or the program coordinator if any problems or concerns arise in class, lab or clinic will result in disciplinary action.

13. Any student rebuttal concerning a clinical grade must be written and submitted to the Clinical Coordinator within one week after the initial review. All final decisions will be discussed with the Program Coordinator.

RADIATION SAFETY & PROTECTION

1. Wear gloves and eye protection when injecting, performing blood volumes, straight sticks and IV starts.

2. Use aseptic procedures when performing injection techniques and radiopharmaceutical preparation

3. Discard all radiopharmaceuticals to the proper hot lab trash. Do not discard any sharps into a regular receptacle.

4. Abide by all appropriate Radiation protection practice and protocols as stipulated by each clinical facility.
   a. Abide by all radiation standards when injecting and compounding radiopharmaceuticals. (Utilization of syringe shields, lead lined containers and unit dose carriers).
   b. Wear lab coats during all clinical rotations.
   c. Wear gloves when opening packages and handling all radiopharmaceuticals.
   d. DO NOT EAT, DRINK OR APPLY COSMETICS IN THE CLINICAL RESTRICTED AREAS. NO GUM, MINTS or CHAPSTICK ALLOWED!
   e. EXPOSURE BADGES MUST BE WORN AT ALL TIMES DURING CLINICAL and LABORATORY HOURS
   f. Ring badges must be worn when handling patients, in contact with any radioactive substance, preparing, assaying and administering radiopharmaceuticals.
   g. Monitor hands and record after handling any radioactive material as per clinical site.

UNDER NO CIRCUMSTANCE CAN A STUDENT INJECT A RADIOPHARMACEUTICAL WITHOUT FIRST ASSAYING THE RADIOACTIVITY OR VERIFYING THE DOSE LABEL, VERIFYING THE PHYSICIAN’S ORDER AND PATIENT IDENTITY (USING 2 IDENTIFIERS). THE STUDENT MUST PERFORM ALL OF THE TASKS MENTIONED ABOVE UNDER DIRECT SUPERVISION OF A TECHNOLOGIST OR PHYSICIAN.

THERE ARE NO EXCEPTIONS TO THIS RULE. DISREGARD FOR THIS POLICY WILL NOT BE TOLERATED AND WILL RESULT IN DISCIPLINARY ACTION.
GENERAL:

1. Have all female patients between the ages of 10 and 55 verify the status of possible pregnancy and/or breast feeding.

2. Washing hands is required prior to and after all patient contact.

3. Seasonal flu, PPD (TST), COVID 19 and any other required vaccinations must be kept up to date at all times.
   a. Students are responsible for updating immunizations, criminal background checks, drug screens as required by each clinical site.

4. Students are not allowed in the clinical if they display signs of illness (fever, vomiting, and diarrhea).

5. Students are required to obtain BLS for Healthcare Providers CPR certification prior to NMT115 Introduction to Nuclear Medicine

6. Students are required to complete mandatory educational modules and/or attend in-services required by CCHS and any other clinical site.

7. Cell phones are not permitted to be utilized during scheduled clinical hours or during classroom or laboratory sessions. Cell phones should be put away and silenced during these times.

8. Do not wear lab coats while eating lunch or during break periods.

9. No more than one student should be in each imaging room unless a study is being acquired that is not often performed.

10. No congregating in the hallways or in imaging rooms where more than one student is scheduled.

11. No sleeping during clinic or classes (see discipline guidelines).

12. Do not take any books or Journals from any department without the given permission by the Chief Technologist, Medical Director or Program Coordinator or Clinical Coordinator

13. DO NOT make any copies of images or take patient information from an assigned hospital without permission from the chief technologist, AES or program faculty.

14. KEEP ALL PATIENT INFORMATION CONFIDENTIAL (see Confidentiality Policy).
   a. Abide by all HIPPA guidelines which include not telling the patient or patient’s family any diagnostic information.
   b. Unauthorized use of the facilities’ Power chart, PACS, ISite, or Radnet systems is direct violation of HIPAA.

15. STUDENTS MUST WEAR THEIR CCHS PHOTO ID AT ALL TIMES DURING THE CLINICAL INTERNSHIP and DIDACTIC COURSES WHEN THEY ARE ON CCHS PROPERTY.
   a. Delaware Technical Community College student ID must be worn at all other clinical facilities.
   b. Under no circumstances can you lend the CCHS's "ID CARD" to any friend or family member.
16. Notify the technologist immediately if an error or a malfunction occurs on any piece of equipment or instrument.

17. Inform the technologist or physician immediately when "something has gone astray" in general.

18. All clinical facilities are smoke free areas. Any smoking on clinical site property is direct violation of their policy and grounds for program disciplinary actions.

19. Noncompliance to any hospital rules or regulations could jeopardize the student's continuing success in the program and will result in a 10-point deduction from the Final semester clinical internship grade. (See guidelines for discipline.)

STUDENT CLINICAL ROTATION GUIDE

GENERAL OBJECTIVES AND RESPONSIBILITIES:

For the Patient and Co-Workers

♦ To be professional and polite to all patients, technologists, and hospital personnel.

♦ To assist and perform all nuclear medicine procedures under the DIRECT supervision of a technologist or physician.

♦ Complete all questionnaires and patient information necessary to obtain a thorough patient’s history.

♦ Prepare imaging rooms for the day and before and after patient studies to be compliant with infectious control procedures. (ie. change linens, wipe down equipment and patient imaging tables, and stocking supplies etc.)

♦ Ask appropriate questions at appropriate times, keeping the patient’s safety and needs in highest regard

Quality Control, Instrumentation and Radiation Protection

♦ To assist and perform all QUALITY CONTROL on each instrument and camera daily or recommended intervals.

♦ Validate the results daily for all quality control on each instrument with the clinical facility technologist.

During the Clinic, Didactic Class and Meetings

♦ The cost of gas, bridge tolls, parking at clinical affiliates is at the expense of the student. In addition, the cost of maintaining appropriate status for each clinical site rotation is at the cost of the student. (ie. criminal background check, drug screen, PPD, Flu/COVID vaccine etc.)

♦ Professional dinner meetings are at the expense of the student.
TRAJECSYS REPORTING SYSTEM

Trajecsys is an online, web-based clinical management and tracking system utilized in the NM program to document clinical related skills, practices, documentation and instructor and student clinical assessments.

For NMT 295 Clinical Internship I students will register for an account in Trajecsys and continue to use this system for all clinical record documentation until the end of the program. Students will be instructed how to properly deidentify patient information, the process for clocking in and out at clinical sites and requesting clinical assessments from clinical instructors required for graduation from the NM program.

Trajecsys will be used in the clinical setting for:

1. Procedures observed, assisted and/or performed must be documented in the Daily Log sheet in Trajecsys. All procedure logs must be completed by the end of the scheduled day via Trajecsys.
2. Failure to submit Procedure logs daily will result in a 1-point deduction per day from the clinical rotation grade (max 5 pts./week) and the discipline policy will be implemented.
3. All Procedure Competency evaluation forms must be assigned to the technologist via Trajecsys the day the competency is performed.
4. Requesting Clinical Rotation Evaluations is the responsibility of the student. Clinical Rotation Evaluation requests must be emailed to the technologist via Trajecsys at least 1 week prior to the last day of the clinical rotation. In addition, an email must be sent to the Clinical Coordinator documenting this request and to which technologists will be evaluating the student. (Failure to request Clinical Rotation evaluations by email will result in a zero for that clinical site rotation)
5. Clinical hours will be recorded via Trajecsys. The student is responsible for clocking in and clocking out of their clinical rotation shift daily. Failure to document clinical hours will result in a 1 point/day deduction from the rotation clinical grade. Over usage of continuous time exceptions or repeated lateness will initiate the discipline policy (Please see disciplinary policy)
   a. Incomplete/non-submittal of clinical hours will be considered time off from the clinic and invoke the attendance policy requirements.
   b. If a student is absent from clinical using PTO hours, documentation via Trajecsys is still required.

CLINICAL COMPETENCY REQUIREMENTS*

Although this program is designed to allow the student to move gradually from dependent to independent performance, students must achieve the following minimum competency requirements in order to progress to the next semester:

<table>
<thead>
<tr>
<th>Summer Semester (3 procedures)</th>
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<tbody>
<tr>
<td>• Three procedure competencies from Category I or II must be successfully completed with a minimum grade of 70%. Student must have performed procedure at least 3 times prior to performing procedure competency.</td>
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<tr>
<td>• Ancillary Competencies per Clinical Site Requirements</td>
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</tbody>
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| Fall Semester (13 new and 2 re-competency procedures)               |
Clinical Competencies – Demonstration of clinical competence means the student has performed the procedure independently, consistently, and effectively during the clinical rotation.

1. Minimum competency requirements must be completed prior to the last week of each clinical semester.
   - Only during unforeseen circumstances will an Incomplete clinical grade be awarded. The student will be given only one additional week after the end of the summer or fall semester to complete the competency.
   - If the student fails to achieve the competency the incomplete grade will become an F. (See off track policy in the Allied Health Handbook.)
   - ALL competencies performed must be documented in Trajecls (including technologist name). Only documented competencies are valid. Failure to document competency in Trajecls will result in a zero.

2. Any failed competency during a clinical rotation which has not been repeated, will result in a zero, and will be included in the student’s final competency grade. However, the competency requirements still apply for each semester.

3. The above clinical competencies must be successfully passed with a minimum grade of 70. If unsuccessful, remediation is required with clinical instructor or clinical coordinator prior to a second attempt. If the second attempt is successful, the maximum achievable grade will be a 70%. If second attempt is unsuccessful a third attempt may be permitted at the discretion of the program faculty, if successful the maximum grade will be a 70%. There is a maximum of three attempts for successful completion of procedure competencies. After the third unsuccessful attempt to pass a procedure competency the student will be given an “F” for the course and become off track in the program (See Off Track Policy).

4. All required competencies must be completed by the end of NMT 297. No incomplete grades will be granted unless there are unforeseen circumstances.
   - Unforeseen circumstances include: extended illnesses, FMLA with proper physician documentation, military leave, death in the immediate family, delivery of a child or any type of pandemic.
   - A student’s lack of obtaining a competency because of their procrastination is not an unforeseen circumstance.

*Click here for a list of competencies*
Rotation Injection and Kit Preparation Competencies

NMT Ancillary Competencies

Summer, Fall and Spring Semesters

These additional competencies are required for each specific clinical rotation:

<table>
<thead>
<tr>
<th></th>
<th>Kit Prep* (fall &amp; spring only)</th>
<th>Injection Through IV</th>
<th>IV Start</th>
<th>Straight Stick</th>
<th>Patient Care</th>
<th>QC</th>
<th>Package Receipt</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCHS Cardiac</td>
<td>5</td>
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- Students are allowed to inject in peripheral IV lines only (no central or PICC lines) and only under direct supervision.
- Students may perform a straight stick/butterfly stick or IV start under the direct supervision of an instructor or clinical technologist.

*Kit Prep may include any radiopharmaceutical or non-radiopharmaceutical (CCK) kit preparation.
Students are required to complete their own Clinical Pocket Notebook for each procedure at every clinical site. This notebook must be carried by students during all clinical and laboratory sessions.

**Clinical Notebook**

Information to be included in student notebooks:

1. Routine procedures for each study learned to include:
   a. Indication for study
   b. when the patient is imaged post-injection
   c. acquisition parameters (counts/time, frames)
   d. patient prep, restrictions, contraindications
   e. collimator used
   f. dose and radiopharmaceutical
   g. processing
   h. list relevant patient questions

*All information should be entered in an organized manner.*

2. Variations in clinical routines according to clinical site

3. Emergency protocols
   - Code Blue, Standard precautions, RACE, MSDS, etc.

4. Security’s phone number for the institution.

The Clinical Supervisor, Clinical Technologists and the Clinical Instructor may review the student’s notebook at anytime during the clinic or laboratory courses. Quizzes may be administered during clinical rotations by the Clinical Coordinator with the student utilizing his/her notebook.
ACADEMIC AND CLINICAL GRADING SYSTEM

The student’s didactic and clinical performance will be graded throughout each semester. Set objectives are assigned for each didactic course and clinical site rotation. As the year progresses, individual task assignments in clinical rotations increase in difficulty. All students must maintain a 70% level of proficiency on all college terminal, programmatic, course and clinical rotation competencies.

The following grading scale is utilized:

- A = 90 - 100
- B = 80 - 89
- C = 70 - 79
- F = below 70
- I = Incomplete
- W = Withdrawal

TEST POLICY

A. Students who miss classes due to an illness/personal reasons must complete that material and be prepared to take the exam with the rest of the class; tests will not be postponed accommodating individual student schedules.

B. At his/her own discretion, the instructor may choose to provide extra credit projects and/or bonus questions on the final exam. All extra credit opportunities will be available to every student.
**RETEST POLICY**

To provide students with reasonable opportunities for successful completion of the Program, the following retest policy applies to students who have failed ("F") a program didactic course or failed ("F") the Cumulative Final Exam of a program didactic course:

A. At the end of a program didactic course, when the student has a failed grade for the course, the student may be permitted to retest. This is at the discretion of the instructor and will only occur when doing so gives the student the potential to pass the course.

B. At the end of a program didactic course, if the student has failed the Final Cumulative Exam the student must retest to demonstrate understanding of program didactic content. If the student fails the Cumulative Final retest the student has not demonstrated understanding of the required program course objectives and will become off track in the Nuclear Medicine program.(see Off Track Status)

C. The retest format must pertain to a didactic course or didactic portion of a course. The retest is a written exam which can only replace one written exam that received a grade of below 70%. If the student passes the retest, a grade of 70% will be awarded for the retest. It will be weighted according to the course evaluation mechanism described in the instructor’s course handout.

D. Instructors will notify the Program Coordinator of any retests administered. This information will be maintained by the Program Coordinator.

E. The following restrictions apply to this policy:
   - This policy is in place to assist a student with one difficult day of testing. A retest will only be granted if the student has failed a test. Retests do not pertain to quizzes, lab practicums, assignments, or long-term and/or scheduled semester projects, group or take-home activities.
   - Only program major courses (NMT courses) are included in this policy.
   - Only two opportunities to retest will be permitted during a student’s enrollment in the program curriculum. Instructors will notify the program leader prior to administering a retest to verify eligibility. All information pertaining to the student’s retest history will be in the program leader’s files, and available for student review.
   - Only one retest will be permitted per semester regardless of the number of courses taken that semester. The retest can be given in either a didactic course or a didactic component of a course that also contains a laboratory component.
   - If the student fails the retest, the final grade will be an F for the course.
   - No opportunities to retest will be permitted when academic integrity occurs (see Academic Integrity Policy in Delaware Tech Student Handbook [https://dtcc.smartcatalogiq.com/Current/Catalog/Academics/Academic-Integrity])
MAKE-UP EXAM POLICY

In the event that a student misses a major exam/test due to absence, a make-up exam will be given. The following restrictions will apply:

A. Only one opportunity to make-up an exam will be granted within the entire NMT curriculum (all courses with a NMT prefix) as long as the student followed the proper “call-off” protocol.

B. The student must contact the instructor immediately upon return from absence, not to exceed three days, in order to schedule the make-up exam.

Test/Exam Integrity Policy

In order to maintain integrity during academic testing, the following guidelines have been established for the face-to-face learning environment:

A. All books, papers, notebooks, etc. must be contained in a backpack and placed on the floor under the desk.

B. All electronic devices, including but not limited to, cellphone, laptops, tablet, and smart watches must be powered off and placed in the backpack under the desk.

C. Calculators, if required, will be provided by the instructor.

D. Scratch paper, if needed, will be provided by the instructor.

E. No one will be permitted to leave the classroom once the test has been handed out.

F. No food or drink will be permitted during the test.

Test/Exam Integrity Policy for Virtual Learning

To maintain integrity during academic testing, the instructor will ask the student to pan over testing area with camera to verify the following guidelines have been met:

A. Student should have proper functioning internet access including audio and video components.
   a. Students must have a Windows 10 or 8, or Mac OS X 10.12 or higher. Mobile phones cannot be used for online quizzes or exams.
   b. Lockdown Browser must be downloaded on electronic device.

B. All other electronic devices, including but not limited to, cellphone, laptops, tablet, and smart watches must be powered off and away from student’s testing area.

C. Student video must be set to “ON” during lecture and all quizzes/exams for communication and monitoring purposes.

D. Calculators, if needed, will be available through Lockdown Browser.
E. Scratch paper, if needed, will be the only resource allowed during the test/exam.

F. No one will be permitted to leave their device once the test has begun.

REENTRY POLICY FOR NMT PROGRAM

The following policy is in place for students who have previously withdrawn from a George Campus allied health program:

A. Reentry within one academic year of program withdrawal

1. Students will be afforded the opportunity for priority reentry into the same program for only one academic year after withdrawing from that program. Students must document their request for reentry in writing to the program coordinator. Due to the unique nature of each allied health program, the timing and requirement for reentry is determined by each program (refer to the NM Program Reentry policy). Requests received after the program-specified deadline will not be considered.

2. The program coordinator will be responsible for advising the student and determining whether a cumulative basic science exam and/or specific program major course exams are needed to confirm academic readiness for reentry. These exams will include all learning domains: didactic, psychomotor, and affective, and only one attempt will be permitted.

3. The NM programs reserve the right to prohibit a student from reapplying to the program. The reason(s) for such action may include but is (are) not limited to safety issues, dishonesty, theft, disregard for policies, dismissal from a clinical site, and previous program withdrawals. Execution of this statement must be in conjunction with the dean of instruction, and/or the dean of student affairs and other member of the College community, dependent on the circumstances.

4. If reentry is granted, the student’s final seat approval will be contingent upon the completion and review of new criminal background, fingerprinting, and drug screens, as well as the completion and submission of all updated medical, immunization, and technical standard documents. The full list of requirements to be met will be based on the year of reentry, not the original year of seat acceptance.

5. All NMT didactic courses must be retaken from the fourth semester forward and all clinical courses must be retaken for credit (NMT 295, 296 and 297). The student may test out or retake NMT 101 Patient Care for the NMT, NMT 115 Intro to NMT with Clinical lab, and NMT 222 Nuclear Physics. Test out consists of:
   a. NMT 101 - successfully pass a cumulative didactic exam with a minimum grade of 70%.
   b. NMT 115 - successfully pass a cumulative didactic exam with a minimum grade of 70% and successfully pass the required clinical competency skills with a minimum grade of 70% for each.
   c. NMT 222 - successfully pass a cumulative didactic exam with a minimum grade of 70%.

6. Reentry can be considered only if a seat in the same program and applicable program year is available. Students who have withdrawn with passing grades will be considered first for
available seats. If there are more students who withdrew with passing grades requesting reentry than there are seats available, academic ranking based on program course GPA will be used. This GPA will be calculated using all program-specific, non-bolded courses from the course sequence sheet.

7. Students who have withdrawn with “F” grades (at the time of withdrawal) will be considered for reentry after all students with passing grades have been accepted. If there are more students with “F” grades requesting reentry than there are seats available, academic ranking based on program course GPA will be used. This GPA will be calculated using all program-specific, non-bolded courses from the Course Sequence Sheet, and must meet the program’s current GPA minimum for application.

8. Students with Veteran priority status at the time of program acceptance will maintain that status for the purpose of reentry, however all other policies, including Section A.3 above, apply.

9. There is no reentry into a different program. Students interested in a different program are subject to the competitive admission process.

B. Reentry more than one academic year after program withdrawal

1. Students who wish to be considered for the same allied health program one academic year or more after withdrawal are subject to the competitive admission process.

2. If more than one year has elapsed after the semester of withdrawal, students must apply through the allied health programs application process in effect at the time of re-application.

3. These applications will be processed with all the others and the class chosen based on the ranking system, with no preference given to students previously accepted into the program.

ATTENDANCE POLICY

CLINICAL INTERNSHIP

Attendance in clinical education is mandatory. A student can increase his/her proficiency in Nuclear Medicine only through increased time within the departments. If a student misses clinical education due to illness or for personal reasons, the following restrictions are applied to the individual semester clinical final grade:

1. Each student has 8 hours of personal time per semester. Any hours missed above 8 must be made up prior to the end of the semester.

   The student must schedule their make-up time (specific date) with the clinical coordinator within two weeks of the absence. The student is required to honor their scheduled make-up day(s) or 2 points will be deducted from their final grade.
2. Each student can have one occurrence for clinical hours without any points being deducted from the final grade. Any time missed over the one occurrence will result in a 1-point deduction off the final semester grade for each additional occurrence:
   - One absence is equal to one (1) occurrence
   - Two lateness/early dismissal is equal to one (1) occurrence.

3. Clinical affiliate instructors must verify all timecards documenting the student's clinical attendance.

4. If the total number of clinical hours missed exceeds twenty percent, an F grade will be awarded to the student for that course.

5. If you are going to be absent or late for any reason, please e-mail Karen Griffith @ kgriff17@dtcc.edu AND notify the clinical site within 15 minutes of the start of clinical shift.

6. If a student has surgery during clinical, didactic classes or break a Physician's note must be submitted prior to returning to clinical or class verifying all essential functions required to perform duties as a student are met and student is able to perform those duties safely.

CLASS ATTENDANCE

EACH COURSE INSTRUCTOR WILL DOCUMENT STUDENT'S ATTENDANCE.

Please arrive to class and lab on time. If you arrive late, you may enter the classroom however lateness or leaving early, before class is finished, is considered an occurrence.

You can have one occurrence that encompasses both class/lab hours without any points being deducted from your final grade. Any time missed over the one occurrence will result in a 1-point deduction off your final semester grade for each additional occurrence:
   - One class or lab absence is equal to one (1) occurrence
   - Two class or lab lateness/early dismissal is equal to one (1) occurrence

If you are going to be absent or late for any reason, please e-mail the instructor. Any problems which must be discussed with the instructor should be directed to the instructor's Delaware Tech e-mail

CALL OFF/LATE POLICY FOR CLINIC OR DIDACTIC COURSES

For Clinic
1. When a student "calls off" or will be late he/she must first e-mail Karen Griffith at kgriff17@dtcc.edu prior to the start of their shift.

2. In addition, the student must inform the clinical site of his/her absenteeism no later than 15 minutes post assigned clinical time.
   - If a student is late, he/she must inform the clinical site with a tentative arrival time
   - The student is required to state to the assigned technologist or supervisor, not a clerk, he/she will be late or absent.
   - If call is answered by an answer machine, leave a message, and e-mail the instructor.
• Lateness to clinical or missing an entire clinical shift should be documented in Trajecsys accordingly.

3. Students MUST be on the “floor” by their assigned times. Trajecsys will reflect the time the student is actually in their assigned area not the time he/she walks into the department.
  • If start time changes from regularly scheduled time, it must be approved by the assigned technologist and Clinical Coordinator.

4. Students are required to use the clinical site computer to clock in/clock out. (cell phones should not be used)

5. Students must call Karen Griffith (302) 320-4553 prior to leaving or having been dismissed by a clinical site greater than 30 minutes before the end of their scheduled clinical time and document in Trajecsys as an exception while clocking out. Failure to do so will result in a 2-point deduction for each infraction off their Final computed clinical grade.
  • If student is staying after the scheduled clinical rotation time (to complete a competency or skill) it must be documented by a technologist and the Clinical Coordinator must be notified. In addition, the Clinical After-Hours form must be completed by the technologist, signed by the student and submitted to the Clinical Coordinator.

For Courses
1. When a student "calls off", he/she must e-mail the course instructor prior to the start of class.

For Clinic and Didactic Courses
A 2-point deduction for each occurrence will be taken off the Final grade for not following the policy. Failure to inform a clinical site and/or the clinical instructor of one’s absenteeism during clinical and the didactic instructor for courses could jeopardize the student's success in the Nuclear Medicine program. (See guidelines for discipline)

BREAK AND LUNCH PERIODS

Breaks are a luxury. The technologists are not required to allocate time for morning or afternoon breaks. However, if a student is assigned a break (total time fifteen minutes) eating and drinking is not permitted in the classroom, restricted area, or any departmental lounge.

Thirty-minute lunches are mandatory for each clinical day. The student is not permitted to work through the lunch period, even at the request of a technologist. Additionally, lab coats are not to be worn to the cafeteria.

ID photo name tags must be worn to the cafeteria.

HAZARDOUS WEATHER ATTENDANCE POLICY
An official snow day from classes and clinic will be observed when DTCC (George) announces its closing. Late openings will also be observed as announced. However, there is a strong possibility that missed time in the clinic or classroom will be made up. Be sure to update contact information through DTCC to be advised of this information.

Please check DTCC website for the Stanton/George Campus.

**DEATH IN THE IMMEDIATE FAMILY**

The following procedure is utilized in the unfortunate periods of death in the immediate family. The time granted off is an excused absence.

Students may receive up to three days excused absence in the event of a death in their immediate family. Immediate family includes spouse, children, parents/parents’ in-law, brothers, sisters, or significant others.

**VACATION AND HOLIDAY POLICY**

The Nuclear Medicine program requires attendance in class and clinic on a full-time basis. Clinical courses require the student to attend clinic during normal college breaks.

Students will have off from class and clinic during the following breaks and holidays:

**Summer Semester**

Memorial Day - Last Monday in May
Juneteenth – June 19th (per college observation day)
Independence Day - July 4th (per college observation day)

**Fall Semester**

Labor Day - First Monday in September
Reading days – (two days in October, Specific dates per college)
Thanksgiving Holiday - Fourth Thursday & Friday in November

**Spring Semester**

Martin Luther King Day - Third Monday in January
Good Friday – (Friday prior to Easter holiday)
Spring Break – 1 week in March
DRESS CODE POLICY

All uniforms must be ironed and professional in appearance with no writing or visible damage to the uniform. All uniforms must be size appropriate (no tight fitting or baggy uniforms). Students who attend clinical, didactic and lab sessions in improper uniforms will have one point deducted from their final grade for each infraction (shirts, socks, pants and lab coats.) In the event a student arrives for clinic without his/her lab coat, ID badge or dosimeter, they will be asked to leave the site. Time missed will be deducted from the student's personal time and penalty points will be implemented. If any there are any questions about the appropriateness of the uniform, please contact the program faculty.

1. Light blue (ceil) scrub pants, shirts and lab coats (appropriate size).
2. Socks (no inappropriate styles)
3. Leather (not canvas) athletic shoes, black or white (no Clogs, heel must be covered)
4. No bright cosmetics.
5. No dangling jewelry or earrings. Only two earrings per ear. No raised stones in rings.
6. Hair must be tied back if it touches the shoulders (off the face).
7. No colored nail polish. No acrylic overlays or false nails.
8. No perfume, after-shave, scented lotions or heavy body wash can be worn in the clinic or classroom.
9. White T-shirts or long sleeve shirts may be worn beneath scrub tops. (No logos or print may be visible beneath uniform)
10. STUDENT ID BADGE MUST BE WORN AT ALL TIMES IN THE CLINIC.
11. All visible tattoos must be covered during clinic.
12. No facial or tongue piercings during clinical and lab classes.
13. All ear gauges must be plugged.
**RADIATION PROTECTION POLICY**

Radiation protection for oneself and for the patient is a major responsibility for the student. Radiation Safety and Protection material will be presented to the student during the Introduction to Nuclear Medicine course prior to receiving radiation monitoring devices. Students will be evaluated regularly in the Nuclear Medicine departments to ensure radiation exposure is kept as low as reasonably achievable and appropriate radiation safety practices are followed. Students are required to complete ongoing Radiation Safety and Protection modules assigned by the Radiation Safety Office at Christiana Care. A whole-body dosimeter and a TLD ring badge will be issued to the student prior to clinical observation and distributed quarterly thereafter. All radiation dosimeters must be worn while in the Nuclear Medicine departments for clinical or laboratory sessions. Any student who reports to clinic or lab without their monitoring device will be sent home to retrieve it. In addition, a syringe shield will be assigned to students for personal use in the clinical setting. Failure to utilize syringe shields for radioactive injections will impose the discipline policy.

A copy of each student’s radiation exposure history is kept in the Radiation Safety Office at Christiana Care and by the Program Director (PD). Prior to distribution of dosimeter reports, the Radiation Safety Officer reviews and approves all dosimeter reports for acceptable readings and will contact the PD and the student if any dosimeter readings are above acceptable levels. During the student’s tenure in the program, available radiation dosimeter reports will be reviewed and initialed by each student quarterly and documented in Trajecsys. After the student has graduated from the program, the final exposure report will be forwarded via email or mail. Damage to a monitoring device or inadvertent exposure to a radiation source should be reported to the Program Coordinator immediately. Failure to comply with radiation protection standards will result in disciplinary action (See Discipline Policy).

**EXPOSURE BADGES**

1. Exposure dosimeters must be worn during all clinical and laboratory sessions.

2. Whole body badges are worn on the outside of the lab coat at the approximate height of the collar.

3. Ring badges are worn on the hand most frequently utilized.

4. Old/expired badges must be submitted to the PD on the next scheduled class meeting. Failure to comply will result in the deduction of 1 point from the final clinical grade for each day they are late. Since nuclear medicine students wear two exposure badges there exists the possibility that two points will be deducted for each time period.

5. In the event an exposure badge is lost the student should contact the Clinical Coordinator or PD for directions on how to obtain replacement dosimeter badges prior to attending clinic or lab. Three (3) points will be deducted from their final clinical grade.

6. **NO STUDENT IS ALLOWED IN CLINICAL WITHOUT THEIR EXPOSURE BADGES.**

7. Time missed during a "radiation badge-less" period will fall under the stated attendance policy.
Pregnancy Policy

If a student voluntarily chooses to inform program officials of her pregnancy, it must be in writing and indicate the expected delivery date. In the event of an announced pregnancy the student must meet with the program director and inform the radiation safety officer of the primary clinical affiliate (CCHS).

A pregnant student is encouraged to complete the program and continue if she is physically able. A pregnant student will not be removed from clinical duty specifically for the condition of being pregnant. If the student cannot complete the program, the program director and the instructional director will advise each student (on an individual basis) of all clinical and academic options available before all parties reach an agreement. If the student withdraws, she may seek re-admission for the following year and adhere to the Withdrawal/Re-Admission Policy for Nuclear Medicine Program students.

Pregnant Clinical Policy

The NCRP (National Council on Radiation Protection and Measurements) established dose-limiting recommendations in 1971. In that report, the total radiation dose to the mother/fetus during the entire pregnancy will be limited to less than 500 millirems. As mentioned previously, exposure records will be reviewed with the student.

The NCRP has set the occupational exposure limits at very low levels and medical evidence has indicated no clinically observable injuries to individuals due to radiation exposures when the established radiation limits are not exceeded. All the clinical affiliates for the Nuclear Medicine Program follow the ALARA principle (as low as reasonably achievable). The risk to individuals at the occupational exposure levels is very low when performing routine clinical procedures. By adhering to the Program policy and recommendations of the NCRP, ALARA guidelines insure minimal exposure rates to the pregnant student.

A pregnant student may perform all the routine clinical procedures that a non-pregnant individual can, except for those procedures that have a higher radiation exposure rate (see Exemptions).

These procedures can be simply avoided. However, all clinical and didactic objectives and competencies MUST BE completed with a minimum score of 70% prior to graduation. The program coordinator, clinical supervisor and/or clinical facility will adjust contact of the student with known patients having contagious diseases.

EXEMPTIONS

- Radiopharmaceutical preparation (generator elution)
- Handle high-energy diagnostic radionuclides (i.e. 131 iodine)
- Interact with patients receiving radiotherapies
- Handle liquid iodinated sources
- PET rotation

POLICY ON COMMUNICABLE DISEASE

The establishment of an appropriate awareness by students enrolled in an Allied Health program regarding potential exposure to communicable disease is the role of the department. In meeting this obligation, the department requires:

   a. annual attendance at an informational forum regarding communicable diseases of serious concern to Allied Health students.

   b. the availability of literature regarding vaccination programs or testing to determine the potential for contracting the disease.

   c. a defined protocol for maximum prevention of transmission of communicable diseases to the student or to the patient. (See Standard Precautions)

Because such a policy may only become effective with cooperation of the enrolled student, the student is obligated to:

   a. submit medical history and physical examination forms prior to the start of program major courses.

   b. sign statements regarding knowledge of any decisions about available vaccine programs.

   c. routinely complete the appropriate protocol for prevention of transmission of disease between student and patient.

   d. immediately report any occurrence or illness that may indicate exposure to a communicable disease.

   e. comply with all required vaccination or testing prior to entering the clinical setting.

During the COVID pandemic, students participating in clinical experiences are required to sign the most current version of the COVID waiver, which states that students must comply with affiliating clinical agencies’ policies. Per the College legal department: Execution of the waiver is a condition of participation. Refusal to sign means the student will have to withdraw from the course.

Variation from defined protocol or required testing may result in dismissal from clinical setting.

Re-entry will be determined after thorough incident review by the department and clinical site personnel.
STANDARD (UNIVERSAL) PRECAUTIONS

Occupational exposure to bloodborne and other pathogens may occur during procedures in which potentially infectious materials may be reasonably anticipated to contact a student's skin, eye, or any mucous membrane, or penetrate the skin of the student on a sharp object. Potentially infectious materials include:

* blood
* blood or serum containing body fluids, secretions, or excretions
* any unfixed body tissue
* semen
* vaginal secretions
* cerebrospinal fluid
* synovial fluid
* pleural fluid
* pericardial fluid
* amniotic fluid
* saliva
* other secretions
* excretions
* microbial cultures

In a practical sense, this means:

1. Hands must be washed before and after patient care, immediately if soiled with potentially infectious materials, and after removing gloves or other personal protective equipment. In those limited instances in which handwashing facilities are not available use the hand sanitizers provided.

2. Gloves must be worn when handling items contaminated with potentially infectious materials. Disposable gloves may not be washed and must be changed between patients. Any glove that is punctured, torn, or otherwise damaged must be discarded.

3. Gowns or other clothing protection must be worn whenever soiling with potentially infectious materials may be reasonably anticipated. Clothing that has become soiled with potentially infectious material must be removed as soon as possible and the area of skin that was soiled must be washed with soap and water.

5. Masks and eye protection or face shields must be worn whenever splattering or aerosolization of potentially infectious materials may be reasonably anticipated (e.g., suctioning, passing NG tubes, vaginal exams, etc.).
   - During COVID-19 Student Policy Requirements

5. Sharps must always be handled in a manner that prevents injury. Discard disposable sharps immediately in the rigid sharps containers provided; use containers closest to the area of use. DO NOT recap, bend, break, or otherwise manipulate contaminated needles. For those limited instances in which recapping is indicated, only approved safety devices or one-hand recapping method may be used. Contact Infection Control for further information.
6. **DO NOT** reach into a contaminated sharps container or contaminated trash box at any time for any reason. If there is a problem with retrieval of an essential item, contact your technologist. Do not allow sharps containers to overfill; replace as needed.

7. All used/soiled linen must be bagged in properly labeled polyester laundry bags. If soiled linen is excessively wet or bloody, or if potentially infectious materials have soaked through the polyester bag, place the entire bag in a **CLEAR** plastic bag. Do not use red bags for linen under any circumstances.

8. Contaminated trash must be discarded in a contaminated trash box or barrel that has been lined with two red bags.

9. Eating, drinking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of exposure to potentially infectious materials. Each department/unit shall define such areas.

10. Food and drink must not be kept or placed, even momentarily, in refrigerators, freezers, shelves, cabinets, or on countertops where potentially infectious materials are not present nor where potentially infectious materials are usually stored.

11. All procedures involving potentially infectious materials must be performed in a manner that minimizes splattering or aerosolization.

12. Mouth pipetting/suctioning of potentially hazardous materials is prohibited.

13. **Report ALL penetrating injuries or possible exposures to potentially infectious materials immediately to the supervisor.** Initiate the Needlestick/Body Fluid Exposure Form or specific policy for clinical site. Contact the Program Director immediately.

14. **Must follow Student Guidelines pertaining to COVID 19 as they arise or change throughout all clinical experiences.**
Policy and Procedures for the Management of Needlestick/Body Fluid Exposure

Purpose:
To provide appropriate prophylaxis and follow-up for students who sustain percutaneous or mucus membrane exposures to blood and body fluids.

Policy:
1. Student's Responsibilities:
   A. First Aid
      1. Allow to bleed. Wash the injury site thoroughly with soap and water.
      OR
      2. Rinse the exposed mucous membrane thoroughly with water.
   B. Notify the Clinical Supervisor and DTCC Program or Clinical Coordinator immediately of the exposure.
      a. If a department nurse is available, students may be checked by nurse to determine the extent of injury.
      b. Follow specific Needlestick Policy of assigned Clinical site.
   C. For any exposure at a CCHS site:
      a. Employee Health may be contacted (302-733-1900) to determine if true exposure or to request help with process. Student should not be directed to go to Employee Health.
         i. Do NOT allow source/patient to leave or be discharged prior to ordering labs – follow instructions below
      b. Designated technologist should complete event report in R2L online.
         i. Click on the following link and follow the instructions listed below
            http://intranet/sites/InfectionPrevention/Manual/SiteAssets/Pages/Forms/EditFor m/Student%20Exposure%20Checklist.pdf
         ii. Select: Workplace Injury Icon – note student as “affiliate”
      c. Complete form and print additional copy for student to submit to Program Coordinator
      d. Students/Non- Employee should be referred to ED triage for management including source patient identification and copies of R2L event report
      e. ED will manage student’s baseline labs (if needed) and provide PEP, if indicated.
   D. Student is financially responsible should further treatment be required.
   E. Students are encouraged to have health insurance coverage.
   F. Student should follow up with personal healthcare provider.

II. Technologist's Responsibilities:
A. Be sure that the student has cleansed the exposure site as directed.
B. Initiate R2L event reporting form as listed above (for CCHS) or follow departmental policy specific to Hospital (clinical site other than CCHS).
C. Any questions may be directed to Employee Health Services Nurse Practioner(NP)
D. Inform source/patient event occurred and labs are being ordered by physician or nurse via Powerchart. Notify source patient's attending physician of exposure event.
E. If patient blood not available in lab, redraw patient’s blood. (see Clinical Site Responsibilities below)

F. Provide information “Blood Bourne exposure: Source” handout generated by R2L to patient or patient’s representative. Results available usually 1-2 days.

G. If source patient is OP, inform them an ED call back NP will notify with results.

III. Triage/Clinical Site Responsibilities:

A. Have the lab drawn.

1. In EVERY incident where the patient source of the exposure is known, have the patient's blood drawn for Hepatitis B surface antigen (HBs Ag).

B. Identify the patient's risk factors for HIV, non-A, non-B Hepatitis or other blood/secretion borne infections.

1. Patient with acute hepatitis of unknown etiology.

2. Immigrant of Asian-Oriental origin.

3. Homosexual or bisexual male.

4. Intravenous Drug Abuser.

5. Sexual partner or infant of the risk groups.

6. Recipient of multiple blood transfusions (more than 10 units) or transplant.


8. Institutionalized Down's syndrome patient.


10. Known HIV positive patient.

11. Known HBs Ag positive patient.

C. If the patient does not have any identified risk factors, indicate appropriately on the report form.

D. If there are identified risk factors for HIV, discuss the situation with the treating physician and request that he/she obtain consent and have HIV antibody testing done.

E. Processing Contaminated Clothing at CCHS

1. Be sure student has washed blood exposed areas of skin thoroughly with soap and water and provide the student with clean scrubs.

2. Initiate the needlestick/blood or body fluid exposure report form. Be sure that both the department and home telephone numbers have been provided.

3. Place contaminated clothing into **CLEAR PLASTIC** bag and place **copy** of the needlestick report form into the bag for identification.
DTCC Student Policies

The following student polices can be located at DTCC Student Handbook

- Tuition refund
- Academic withdrawal
- Readmission
- Due process
- Academic Integrity

COUNSELING POLICY

The program recognizes potential difficulties encountered by students. Therefore, the program offers guidance to help students identify and overcome these problems that might hinder their educational progress or professional development. Students are encouraged to seek the assistance of the faculty as the need arises. Should further counseling be necessary, appropriate referrals will be made.

DISCIPLINE POLICY

Students enrolled in the program are expected to adhere to the policies of the Allied Health Department, Nuclear Medicine Program, and Clinical Sites as outlined in the Student Handbook. The following Discipline guidelines are cumulative and enforced beginning the first day of the Nuclear Medicine Curriculum until the end of the final Spring semester in class or clinical settings.

- For example, arguing and insubordination to fellow students, instructors, physicians, clinical technologists, and hospital staff is not tolerated and is the basis for disciplinary actions.

When a student's behavior or actions threaten to impede his/her clinical or didactic progress, a counseling session will be arranged by the faculty at the point in time the deficiency is noted and are mandatory. The purpose of this session is to make the student aware of the problem and guide him/her towards corrective measures.
### DISCIPLINE GUIDELINES

<table>
<thead>
<tr>
<th>First/Second Infraction</th>
<th>Third Infraction Written Progress Report</th>
<th>Fourth Infraction 2nd Written Progress Report (3 points off Final semester grade)</th>
<th>Fifth Infraction 3rd Written Progress Report and Mandatory Counseling (5 points off Final semester grade)</th>
<th>Sixth Infraction Suspension (10 points off Final semester grade)</th>
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</thead>
<tbody>
<tr>
<td>Verbal Counseling</td>
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<table>
<thead>
<tr>
<th></th>
<th>1. Failure to correctly document clinical start time (timecard), overuse of time exceptions or continuous lateness in Trajectys</th>
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<tbody>
<tr>
<td></td>
<td>2. Failure to complete patient logs daily and clinical site/tech evaluations in Trajectys</td>
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<td></td>
<td>3. Failure to request clinical rotation evaluations from technologist and document with CC each clinical rotation</td>
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<td>4. Improper use of clinical downtime (ie. personal cell phone use, horseplay, etc.)</td>
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<td>5. Leaving the assigned area/clinical site without permission</td>
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<td>6. Non-compliance of dress code policy</td>
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<td>7. Non-compliance of personal hygiene or overuse of perfume, lotion, or cologne</td>
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<td>8. Non-compliance of attendance and/or call off policy</td>
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<thead>
<tr>
<th>First Infraction Written Progress Report (3 points off Final semester grade)</th>
<th>2nd Infraction Written progress report (5 points off Final semester grade)</th>
<th>Third Infraction Suspension of clinical rotation per instructor's discretion (10 points off final grade)</th>
<th>Fourth Infraction Suspension Dismissal</th>
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</thead>
<tbody>
<tr>
<td>1. Refusal to carry out an assignment</td>
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<tr>
<td>2. Insolence, disrespect, bullying, profanity, abusive or threatening language in general</td>
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<td>3. Endangering the health or safety of patients or employees</td>
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<td>4. Refusal or failure to adhere to standard radiation protection practices in the clinic</td>
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<td>5. Failure to comply with the radioactive dose policy</td>
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<td>6. Failure to perform under direct supervision while handling any radioactivity.</td>
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<td>7. Forgery of clinical evaluations, procedure logs and/or timecards</td>
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<td>8. Non-compliance of NRC and State regulations</td>
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<td>9. Non-compliance of Confidentiality Policy</td>
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<td>10. Sleeping during clinical/classroom</td>
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<td>11. Negligence</td>
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<tr>
<td>First Infraction Dismissal</td>
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<tr>
<td>1. Fighting, assault, intent to harm</td>
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<td>2. Theft</td>
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<tr>
<td>3. Willful damage of hospital property</td>
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<td>4. Falsifying records</td>
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<td>5. Possession of weapons, explosives, firearms, alcohol, or drugs</td>
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<td>6. Under the influence of drugs or alcohol and/or alcohol on one’s breathe</td>
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</table>
CONFIDENTIALITY POLICY

A. The confidentiality of patient, employee, clinical faculty and clinical site information is rigorously protected in the clinical setting.

1. It is essential that ALL information about patients, employees, clinical faculty, clinical site/hospital procedures, research and equipment be kept absolutely confidential. The Health Insurance Portability and Accountability Act of 1996 (HIPAA) is in effect in all clinical facilities.
2. Students do not have the authority to download any patient identified images, records or information onto removable external devices.
3. Prior to entering the first clinical experience, each student is required to complete a self-instructional packet about HIPAA.
4. The clinical site may require the student to sign a statement which indicates the student understands and will adhere to the policy. Failure to sign the statement and adhere to policy will jeopardize the student’s ability to complete their enrolled program.

B. The confidentiality of patient, employee, clinical faculty and clinical site information extends to all written and verbal communication.

1. Any written comments related to clinical site activity and/or individuals (including patients, employees, faculty, and classmates) posted on an online social network including, but not limited to, Facebook and Twitter, are a violation of the Confidentiality Policy.
2. Any verbal conversations related to clinical site activity or individuals (including patients, employees, faculty, and classmates) held in an unsecured location then posted to an online social network are a violation of the Confidentiality Policy.

C. There are stringent consequences for students who do not adhere to HIPAA regulations and the guidelines set forth in this Confidentiality Policy. These may potentially include dismissal from a clinical site for a first offense. Within the Allied Health/Science Department, unauthorized release of information will be treated as a Violation of Student Conduct.

D. When a student is dismissed from a program for the above offense, the Allied Health/Science Department reserves the right to prohibit that student from reapplying to any Allied Health Program.
HIPAA POLICY
Health Insurance Portability and Accountability Act

HIPAA is a federal law that protects a patients' right to privacy. The new HIPAA law took effect on April 14, 2003.

Protected Health Information (PHI)

PHI: A combination of an individual's identifiers, i.e., name, social security number, and health information. It includes all health information that is created, collected, stored, transmitted or processed in any form, i.e., paper, electronic or verbal.

Designated Record Sets (DRS)

DRS: Represents a defined group of records containing protected health information that is created and/or maintained by a department and is used to make decisions about an individual's health care.

RE-ENTRY POLICY

Eligibility of students for re-entry into the Nuclear Medicine Program will be determined in coordination with Delaware Technical Community College and the Program Coordinator.

Prior to acceptance back into the Program, the following requirements will apply:

1. All NMT didactic courses must be retaken from the second summer semester forward and all clinical courses must be retaken for credit (NMT 295, 296 and 297).

2. The student may test out or retake NMT 101 Patient Care for the NMT, NMT 115 Intro to NMT with Clinical lab, and NMT 222 Nuclear Physics.

   - Test out consists of:
     * NMT 101 successfully pass a cumulative didactic exam with a minimum grade of 70
     * NMT 115 successfully pass a cumulative didactic exam with a minimum grade of 70 and successfully pass the clinical skills competencies with a minimum grade of 70 for each
     * NMT 222 successfully pass a cumulative didactic exam with a minimum grade of 70
Category I

*All Category I Competencies must be completed by the end of the Spring Semester*

(Please Refer to NMT 295, NMT 296 and NMT 297 syllabi for each semester required competencies.)
**Category II**

**All ARRT requirements must be met prior to graduation**

(Please Refer to NMT 295, NMT 296 and NMT 297 syllabi for each semester required)

<table>
<thead>
<tr>
<th>Procedure Procedure</th>
<th>CCHS Hotlab</th>
<th>WMH PET/CT</th>
<th>CCHS PET/CT</th>
<th>HFG PET/CT</th>
<th>HFG PET/CT</th>
<th>VA PET/CT</th>
<th>VA Card</th>
<th>AI</th>
<th>CCHS Card</th>
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<tr>
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<td>PET/CT MPI (SPECT)</td>
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<td>PET/CT MPI (SPECT/CT)</td>
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<td>Salivary Gland (CCHS) or Salivagram (AI)</td>
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<td>Therapy (Spheres/Zevalin/$^{177}$Lutetium)</td>
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<td>Palliative Bone Therapy</td>
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**Studies below this line are rarely seen in the clinical setting**

- Splenic Sequestration
- Barrett’s Esophagus
- Miraluma Scan
- Renal Scan with Captopril
- Effective Renal Plasma Flow
Clinical Procedure Competency Forms

Examples of the following Clinical Competency forms can be found on Trajecsys
Clinical Procedure Forms

Abscess and Infection
- Gallium
- WBC Imaging

Cardiovascular
- First Pass
- Gated Blood Pool (MUGA)
- MPI

Central Nervous System
- Cisternogram CSF Leak
- Cisternography (Routine)
- Dynamic (Brain death)
- Planar Brain
- Shunt Study

Endocrine/Exocrine
- Parathyroid
- Thyroid Metastatic Survey
- Thyroid Uptake
- Thyroid Scan
- Thyroid Uptake & Scan

Gastrointestinal
- Barrett’s Esophageal
- Damaged RBC Spleen
- Esophageal Transit
- Gastric Empty (Milk Scan/liquid)
- Gastric Empty (Solid)
- Gastroesophageal Reflux
- GI Bleeding
- Hemangioma
- Hepatobiliary
- Hepatobiliary + CCK (EF)
- Liver/Spleen
- Meckel Diverticulum
- Salivary Gland Imaging
- Shunt Patency (Hepatic Pump patency)
- Shunt Patency (LeVeen)

Genitourinary
- GFR
- Radionuclide Cystogram
- Renal Cortical
- Renal Function (Dynamic)
- Testicular

Hematopoietic
Blood Volume
Bone Marrow Imaging

PET & PET/CT
Bone
Brain
Cardiac MPI
Cardiac Viability
Tumor (Low Dose, Non-Diagnostic)
Tumor (Diagnostic)

Respiratory
Salivagram
V/Q (Gas or Aerosol)
V/Q Quantitative

Skeletal
Three Phase Bone
Whole Body Bone

SPECT
Bone SPECT
Liver SPECT
Parathyroid SPECT
Renal SPECT

Therapeutic Procedures
Embolic Radiotherapy (HCC)
Immunotherapy (Zevalin or Bexxar)
Non-Hodgkin Lymphoma
Palliative Bone
Thyroid Ablation
Thyroid Hyperthyroidism

Tumor
Adrenal Imaging (MIBG)
Breast (Miraluma)
Gallium or Thallium
Lymphoscintigraphy
Neuroendocrine (Octreotide)

Hot Lab Procedures
Generator Elution
Kit Preparation
Package Receipt

Injection Procedures
Injection through IV
IV Start
Straight Stick

Quality Control
Dose Calibrator (Constancy and/or Linearity)
PET or PET/CT (Reference or Blank Scan)
SPECT Gamma Camera (Uniformity, Resolution and/or Center of Rotation)
Survey Meter (Battery Check and Constancy)
Well Counter/Uptake Probe (Energy Calibration)
Glucometer QC Comp

General Patient Care
   Blood Glucose
   CPR Certified
   ECG (ie. Lead placement and recognition of Common Dysrhythmias)
   Vital Signs (Blood Pressure, Pulse, Respiration)