

# Chattanooga State



Nuclear Medicine  
Technology Program

**Your Guide**

# Nuclear Medicine Technology Program

## Important information: Nuclear Medicine Program at Chattanooga State

### Location

Center for Business, Industry & Health Building (CBIH)  
4501 Annicola Hwy, Chattanooga, TN 37406

### Program Director:

Leesa Ross  
Office: CBIH Building, Room 125  
Phone: (423) 697-3331  
Fax: (423) 697-3324  
leesa.ross@chattanoogaastate.edu

### Division Office:

HSC Room 2088  
Phone: (423) 697-4450

### Application Coordinator:

(423) 697-2504  
Fax: (423) 697-2628

### NMT Clinical Coordinator:

Dusty York, CBIH 128, (423) 695-3335  
dusty.york@chattanoogaastate.edu

*All forms and important information can be found on these two Web sites:*

*N/AH website: [www.chattanoogaastate.edu/allied\\_health](http://www.chattanoogaastate.edu/allied_health)*

*NMT website: [www.chattanoogaastate.edu/allied\\_health/nuclear\\_medicine](http://www.chattanoogaastate.edu/allied_health/nuclear_medicine)*

## Goals

1. Deliver high-quality educational programs and services that provide knowledge, skills, cultural awareness and attitudes needed to experience prosperous and rewarding lives.
2. Contribute to the economic well being of the regions served through workforce development and partnerships with business industry.
  - a. Prepare graduates who will be employed in jobs related to their educational preparation.
  - b. Prepare competent workers to meet the needs of employers.

## Purpose

Nuclear Medicine Technologists are members of the diagnostic imaging health care team. The technologists actively participate in the performance of diagnostic imaging procedures which analyze both the anatomy and physiology of the human body. Nuclear Medicine imaging procedures are performed through the administration of a radioactive pharmaceutical which is then analyzed with gamma cameras. In addition, Nuclear Medicine Technologists use radioactive drugs for therapeutic procedures involving certain diseases.

## Accreditation

The Nuclear Medicine Program at Chattanooga State is approved by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology, 2000 West Danforth Road, Suite 130, #203, Edmond, OK 73003. [www.jrcnmt.org](http://www.jrcnmt.org).

## Program

### Summary of Required Hours

A minimum grade of "C" is required for all courses in the "Summary of Required Hours."

Course #	Course Title	Semester Hrs		
		FALL	SPR	SU
NM 200	Introduction to Molecular Imaging	2		
NM 201	Instrumentation and Statistics	3		
NM 205, 215	Clinical Procedures I, III	2	4	
NM 207	Practicum in Nuclear Medicine I	9		
NM 208	Radiopharmacology	2		
NM 212	Physics and Radiation Biology of Nuclear Medicine		4	
NM 217	Practicum in Nuclear Medicine II		2	
NM 225	Clinical Procedures III			6
NM 227	Practicum in Nuclear Medicine III			6
		18	10	12

**Total Hours = 40**

## Work Settings

Employment opportunities are diversified. An individual may work as a staff or supervisory technologist in a hospital, outpatient imaging center, laboratory or research facility. There are also career opportunities in education, sales, and marketing of nuclear medicine supplies and equipment.

## Program Affiliates

Athens-Limestone Hospital - Athens, AL

Baptist Health System - Montgomery, AL

Cardinal Health Pharmacy - Atlanta, GA;

Allgood, Chattanooga, Knoxville, Nashville, TN; Huntsville, AL, Gadsden, AL

Children's Healthcare of Atlanta - Egleston, Marietta, GA

Children's Healthcare of Atlanta - Scottish Rite-Atlanta, GA

Clinical Pharmacy Services - Grey, TN

Cookeville Regional Medical Center - Cookeville, TN

Covidien Pharmacy-Marietta, GA

Dekalb Medical Center - Decatur, GA

East Alabama Medical Center - Opelika, AL

Emory at John's Creek - Duluth, GA

Erlanger Medical Center - Chattanooga, TN

Gwinnett Medical Center - Lawrenceville, GA

Huntsville Hospital - Huntsville, AL

Hutcheson Medical Center - Ft. Oglethorpe, GA

Johnson City Medical Center - Johnson City, TN

Maury Regional Hospital - Columbia, TN

Memorial Hospital - Chattanooga, TN

Methodist Medical Center - Oak Ridge, TN

Northside Hospital - Atlanta, GA

Parkridge Medical Center - Chattanooga, TN

Riverview Medical Center - Gadsden, AL

Roane Medical Center - Roane, GA

Southeast Apothecary - Opelika and Montgomery, AL

St. Thomas Hospital - Nashville, TN

Sycamore Shoals Hospital - Elizabethton, TN  
Tanner Health Systems - Carrollton, GA  
The Medical Center of Bowling Green - Bowling Green, KY  
Triad Isotopes - Chattanooga, TN  
Vaughn Regional Medical Center - Selma, AL  
Wellmont Health Systems - Bristol-Kingsport, TN

## **Application Procedures**

### **Post-Secondary Educational Requirements**

The following courses must be taken by **ALL** applicants at a post-secondary institution: Anatomy & Physiology, Physics, College Algebra, Medical Terminology, Written Communication, General Chemistry, Humanities course, Social Science course and Oral Communication.

Please contact the NMT program director, (423) 697-3331 or the clinical coordinator, (423) 697-3335, to determine which of these post-secondary educational requirements you have fulfilled.

### **Traditional Student Requirements**

1. Graduation from a CAHEA accredited or equivalent program in Radiologic Technology with proof of registry eligibility with the American Registry of Radiologic Technologists (ARRT) or
2. Certification by the American Registry of Radiologic Technologists (ARRT) before graduation from the Nuclear Medicine Technology Program.
3. A minimum of an associate or associate in applied science degree

### **Non-Traditional Student Requirements**

1. Current certification by the ARRT (R).
2. Documentation of two (2) years minimum full-time employment as a technologist in the field of nuclear medicine technology at one of our clinical affiliates or equivalent.
3. Continued employment within an approved affiliated nuclear medicine technology department during the program year.
4. Contact the program director for specific clinic requirements.

### **Alternate Eligibility Requirements**

Registered medical technologists, registered cardiovascular technologists, registered diagnostic medical sonographers, registered nurses, registered respiratory therapists, or suitably prepared persons with bachelor degrees and patient care experience can apply for alternate eligibility admission.

## **Admissions Procedures**

1. Complete a Chattanooga State application form and submit it to the Admissions Office with the appropriate fee.
2. Complete a Nuclear Medicine Program application form.
3. Submit high school, Radiologic Technology Program and all other college transcripts.
4. Submit ARRT score report, if applicable. (If admitted into the program as a registry—eligible applicant, submission of this score must be reported as soon as it is received.)
5. Submit program application, transcripts, scores, and forms to: Marcia Sivley, Applications Coordinator, Division of Nursing/Allied Health Chattanooga State Community College, 4501 Amnicola Highway, Chattanooga, TN 37406-1097
6. Complete a minimum of 24 hours of observation in a Nuclear Medicine

department, as documented on NMT Program Forms, prior to April 15th deadline.

7. Complete Academic, Clinical, and Personal Reference Forms prior to April 15th deadline.

Forms must be filled out completely in order to be considered for admission. Note to applicants: It is your responsibility to:

- Verify with the Admissions Office the receipt of any transcript and/or transfer credit.
- Request evaluation of transfer credits by the Admissions Office and program director.
- Provide a copy of transfer credits approved by the Admissions Office as part of your official application to a health program at Chattanooga State.

## **Deadlines**

All required materials should be submitted to the Nuclear Medicine Technology Program by April 15 for priority consideration for admission. Applications received after the deadline will be accepted only if space permits.

Applications received by April 15 will be reviewed, and personal interviews will be scheduled with qualified applicants. Each applicant will be evaluated on the basis of previous high school, college, Radiologic Technology Program achievement; the score from the American Registry of Radiologic Technology Program examination (ARRT) (R), the alternate eligibility requirement, observation hours, and a personal interview. Selection of applicants for the program is based upon recommendation for acceptance by the Nuclear Medicine Technology Program Selection Committee. Composition of the class will reflect diversity based on age, gender and race.

Applicants accepted into the program will be notified by June 15. Final acceptance is contingent upon the results of a physical examination, a drug screening and criminal background check.

The goal of Chattanooga State health programs is to prepare practitioners to function in the health care arena to ensure proper care and safety of patients. Program standards are to assure that students have the potential to perform as entry-level practitioners. These program standards are available in the Division of Nursing/Allied Health Office. Acceptance and retention within a health program are contingent upon the student's demonstrated ability to meet these standards.

Upon admission to the NMT Program, students will be required to undergo a physical examination at the student's expense. Costs associated with the physical examination are estimated between \$217-\$310 depending on student immunization needs.

## **Length of Program**

The Nuclear Medicine Technology program at Chattanooga State is a 12-month certificate program which provides training in diagnostic and therapeutic procedures involving the use of radiopharmaceuticals. Accreditation has been presented by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology. The recipient of this certificate is eligible to take the American Registry of Radiologic Technology Examination in Nuclear Medicine Technology (ARRT) (N) and/or the Nuclear Medicine Technology Certification Board Examination (NMTCB).

Classroom and laboratory instruction is offered at Chattanooga State on Mondays and Tuesdays of alternate weeks throughout the program. Clinical education will be at one of the many pre-approved clinical sites located in Tennessee, Georgia, Alabama and Kentucky. Radiologic Technologists who can document at least two years of full-time experience in nuclear medicine technology may apply as non-traditional students. Non-traditional students must maintain full-time employment in Nuclear Medicine at an approved affiliate and meet all clinical competency requirements before graduation from the program.

A large portion of the coursework is performed independently online, away from campus. It is the students' responsibility to be able to access the Web components.

For priority consideration, the application deadline is April 15 for entrance into the fall semester class. This will allow for completion of any lacking prerequisites in the summer before fall semester begins. All prerequisites must be completed before admission to the program.

## **Technical Standards**

- Ability to move wheelchairs, stretchers, etc., alone or with assistance as available to lift support and/or transfer a patient.
- Ability to visualize patient for identification, positioning, camera placement and alignment and image analysis. Ability to move the body and body regions in order to provide patient care and support and to position patient for imaging and/or treatment.
- Ability to reach, position, and operate imaging tables, camera control panels, collimators, dose calibrators, etc., at standard locations and placements.
- Ability to safely administer radiopharmaceuticals and appropriately handle vials, syringes, sterile items, pharmaceuticals, catheters, IVs, etc.
- Ability to read written passages, to communicate orally and to write. Ability to hear or lip read for reception of spoken communication.
- Ability and stamina to withstand lengthy periods of physical activity including moving quickly and continuously.
- Ability to perceive events realistically, to think clearly and rationally and to function independently in routine, stress and/or emergency situations.

## **Americans With Disabilities Act**

Students who have educational, psychological, and/or physical disabilities may be eligible for accommodations that provide equal access to educational programs and activities at Chattanooga State. These students should notify the instructor immediately, and ideally should contact Disabilities Support Services (S-113, phone 697-4452) within the first two weeks of the semester in order to discuss individual needs. The student must provide documentation of the disability so that reasonable accommodations can be requested in a timely manner. All students are expected to fulfill essential course requirements in order to receive a passing grade in a class, with or without reasonable accommodations.

## **Continuation/Retention Policy**

The NMT faculty will make all fair and reasonable efforts to help the student be successful in the NMT Program. Efforts usually include extensive counseling and remediation with faculty and/or referral to Career Planning and Counseling for additional assistance. However, all courses must be passed with a grade of "C" or better in order to proceed to the next NM course in the sequence. Individual course and laboratory requirements are indicated in each course syllabus. A student who develops significant physical limitations or emotional distress during the course of the program, may be asked to undergo additional physical or psychological evaluations to determine their ability to continue in the program. The program courses follow an attendance policy. Excessive unexcused absences, as defined in the NMT student handbook and course syllabi, will result in lowering the student's final grade.

## **Criminal Background Check**

Following acceptance and prior to entering the first career course in designated health care programs, each student must undergo a criminal background check in order to comply with policies of affiliating clinical practice agencies. It shall be the student's responsibility to comply with instructions provided upon acceptance and provide the results by a designated date. The check will be at the expense of the student. Students who do not meet this requirement in a timely manner or whose background does not meet agency standards will not be able to successfully complete the program.

Additionally, a criminal background may preclude licensure or employment. Individuals with a question concerning this should schedule an appointment with the program director.

## Admissions Checklist

Utilize this checklist as a guide for completing your application requirements.

### Have you fulfilled the admissions requirements for Chattanooga State?

- Complete college application and paid application fee.
- Provide official transcripts to the Application Coordinator and the Admissions Office at Chattanooga State.

Note—It is the applicant's responsibility to verify with the Admissions Office the receipt of any transcript and to request evaluation of transfer credits by the Admissions Office.

### Have you fulfilled the admission requirements for the Nuclear Medicine Technology (NMT) Program?

- Complete and submit the NMT Application Form. Send application form and transcripts to:  
Chattanooga State Community College  
Application Coordinator, HSC-2088  
4501 Amnicola Hwy., Chattanooga, TN 37406  
Phone: (423) 697-2504

*Note—The completed NMT Application Form should be submitted before or with other program forms.*

All application materials must be postmarked by April 15 for priority consideration.

- Submit all high school and college transcripts.
- The student must verify with the Admissions Office the receipt of any transcript and/or transfer credit.
- Request evaluation of transfer credits by the Admissions Office. Transcripts will be evaluated for transfer credits only after all transcripts are received and admission requirements are complete.
- Provide a copy of transfer credits approved by the Admissions Office as part of your official program application prior to the application deadline.
- Submit academic, clinical, and personal references. Complete observation hours and corresponding forms.

## Positron Emission Tomography Courses (PET)

Opportunities for individuals holding an active NMTCB, ARRT(N), ARRT(R), ARRT(T) or CAMRT(RTNM) certification may register for the courses below. This provides an individual the opportunity to learn about the expanding clinical use of Positron Emission Tomography (PET). PET provides unique means of studying biochemistry and metabolism within living tissues.

### PET 200 Positron Emission Tomography (3 Credit Hours)

This course is designed to provide students with a cognitive foundation in positron emission tomography (PET). The relationships between physiology, pathophysiology, radiochemistry, radiobiology, instrumentation, and patient care techniques in order to perform PET Imaging procedures in neurology, cardiology, and oncology are discussed. Radiation protection and physics, with focus on the positron, is discussed in detail. Prereq: Instructor's consent. [F, S, Su]

### Pet 207 Clinical Positron Emission Tomography I (6 Credit Hours)

This is the first in a two part series of PET clinical education courses allowing students to assimilate methods, theory, and techniques learned in the didactic course with clinical experience. The objective during the 500 hours of clinical experience is to develop a student who is technically competent and capable of interacting in the healthcare environment in a manner, which maximizes value to the system. Arrange-

ments for clinical education are made by the students at a suitable PET facility within their geographical area. Students will demonstrate an acceptable level of progression in clinical competency throughout the two-course sequence. Prerequisite: CNMT or ARRT Certification. Corequisite: PET 200. Satisfactory/No Credit grading. [F/S/Su]

### **Pet 217 Clinical Positron Emission Tomography II (3 Credit Hours)**

This is the second in a two part series of PET clinical education courses allowing students to assimilate methods, theory, and techniques learned in the didactic course with clinical experience. The objective during the 200 hours of clinical experience is to continue to develop a student who is technically competent and capable of interacting in the healthcare environment in a manner, which maximizes value to the system. Arrangements for clinical education are made by the students at a suitable PET facility within their geographical area. Students will demonstrate an acceptable level of progression in clinical competency throughout the two-course sequence. Prerequisite: PET 207. Satisfactory/No Credit grading. [F/S/Su]

*Please note that different States and facilities may have varying requirements for employment based on an individual's certifications and experience. Please research job standards in your area before enrolling and applying for employment in your specific area.*

### **Financial Aid Notes**

Students wishing to receive financial aid should apply as soon as possible and pay special attention to the satisfactory academic progress regulations regarding maximum time frame. This policy states, "A student may **attempt** up to **102 credit hours**, plus up to 30 transitional studies hours, before he/she becomes ineligible for financial aid.

***The time frame for students seeking a SECOND associate degree is also determined by the 102 credit hour limit plus transitional studies credit hours. Credit hours from the FIRST degree WILL be counted toward the second degree program."***

If you are interested in any form of financial aid, your first step should be to visit <http://www.fafsa.ed.gov>. On the application, you will designate Chattanooga State Community College as your school. You may get in touch with the Chattanooga State Financial Aid Office at (423) 697-4402. You may also find other scholarship opportunities at sites such as <http://www.fastweb.com>. Remember, if you are applying for **any** type of financial aid and/or any scholarships, you must first complete the **FAFSA** form and receive the corresponding **SAR** report.

### **Hotel Accommodations**

You may wish to look online at <http://www.yahoo.com> or [mapquest.com](http://www.mapquest.com) for a map search of hotels in the area, or check a site such as [travel@city.com](mailto:travel@city.com) for hotel rates. Although Chattanooga State has no contracts with area hotels for special rates, traditionally, when students explain that they will be staying on a consistent basis throughout the year, promotional rates are provided.

## Nuclear Medicine Estimated Costs 2011-2012

These costs are estimated and are subject to change.

The college fees are included in the maintenance cost.

Link to Chattanooga State Current website fees: <http://www.chattanoogaestate.edu/bursar>

<b>Pre-Admission Costs</b>	<b>In-State</b>	<b>Out-of-State</b>
College Application (one time application fee)	\$ 15.00	\$ 15.00
Physical Exam and Required Tests (estimate)	\$ 150.00	\$ 150.00
Hepatitis B (estimate)	\$ 175.00	\$ 175.00

### **First Semester (fall)**

Maintenance and Technology Fees (18 hours)	\$1,861.50	\$7,153.50
Textbooks	\$ 500.00	\$ 500.00
Lab Coat	\$ 30.00	\$ 30.00
Student Liability Insurance	\$ 11.00	\$ 11.00
Radiation Badges	\$ 35.00	\$ 35.00
Graduation Application Fee	\$ 25.00	\$ 25.00

### **Second Semester (spring)**

Maintenance and Technology Fees (10 hours)	\$1,435.00	\$5,445.00
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### **Third Semester (summer)**

Maintenance Fee (12 hours)	\$1,705.50	\$6,517.50
Textbooks	\$0-\$100.00	\$0-\$100.00
ARRT	\$ 200.00	\$ 200.00
CNMT	\$ 175.00	\$ 175.00
Passport Photo for ARRT(N) Application	\$ 15.00	\$ 15.00

These costs do not include travel or lodging expenses. All students are also expected to attend the TSNMT annual meeting. Transportation, lodging, and registration fees may be provided to the student via fundraising; however, meals are not included.

Uniforms – Students are responsible for the cost of uniform. Uniforms vary depending on requirements of the student's assigned clinical education center. Students need to contact their clinical supervisor for specific information regarding uniforms.

## Nuclear Medicine Outcome Statistics

Over the last five years, all of our graduates have become registered or certified by the ARRT(N) or NMTCB. Scores of our graduates are overall consistently above the mean for both exams.

A National Leader in Technology



## **Nursing/Allied Health**

### **Nuclear Medicine Technology**

4501 Amnicola Hwy.

Chattanooga, TN 37406-1097

[www.chattanoogaestate.edu](http://www.chattanoogaestate.edu)

423-697-4450

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