

Career Information

Nuclear Medicine Technology

Bachelor of Science
in Radiologic Sciences

General Program Information

Nuclear medicine technology consists of administering ionizing radiation and other forms of energy to provide technical and pathological information to help a physician diagnose and treat diseases and injuries. Nuclear medicine technology is one of several diagnostic imaging and therapy technologies used in patient disease management. Although closely related, each involves its own instrumentation, application techniques, safety practices and patient services.

The Department of Biomedical and Radiologic Technologies offers two pathways into the bachelor of science in radiologic sciences degree program with a major in nuclear medicine technology. College students with no previous health care credentials may transfer 60 semester hours of liberal arts courses (junior transfer), or those certified in a radiologic science may obtain advanced professional studies (degree completion program). The department also offers a certificate program in nuclear medicine technology for individuals who have earned a baccalaureate degree in a hard science.

Following is information for junior transfer students. For information about the degree completion or certificate programs, contact the Office of Academic Admissions.

Professional Tasks and Working Environment

The nuclear medicine technologist aids in diagnosis by producing images or information of the function and structure of body organs using radioactive pharmaceuticals. Responsibilities generally include laboratory preparation, quality control and intravenous administration of radioactive pharmaceuticals; patient preparation and care in positioning for imaging procedures; monitoring operation and quality control of computer-intensive imaging equipment; and monitoring radiation safety equipment and clinical instruments. The nuclear medicine technologist takes an active part in data and image acquisition and in image processing and analysis.

The nuclear medicine technologist may focus on one area, such as nuclear cardiology or nuclear oncology, or may function

in the general imaging area. Baccalaureate level education often leads to specialization in cardiology, management or fusion imaging technology.

Programs Offered

The Nuclear Medicine Technology B.S.R.S. degree program is a 2+2 transfer program. Freshmen and sophomore courses are completed at the college of choice, after which the applicant applies to transfer to MCG for completion of the N.M.T. professional component during the junior and senior years.

The Nuclear medicine technology programs are offered in flexible delivery formats to accommodate busy lifestyles. Clinical affiliates are located in Augusta, Athens, Atlanta and Columbus. Academic course work and clinical attendance require 40 hours per week, regardless of locale.

Certification

Program graduates are eligible to sit for the certification exams offered by the American Registry of Radiologic Technologies (ARRT) and the Nuclear Medicine Technology Certification Board (NMTCB).

Skills and Interests Suited to a Career in Radiologic Sciences

An individual entering this field should have technical and math/science proficiency, computer comfort, self-motivation, empathy, emotional stability, people skills and a strong work ethic. Graduates work directly with patients to obtain diagnostic information or to treat with ionizing radiation.

Related career interests include nursing, medical technology and other patient contact-related fields.

Employment and Career Opportunities

A national shortage of nuclear medicine technologists has expanded opportunities for lucrative employment and rapid advancement. Practice settings include hospitals, outpatient imaging clinics and radiopharmacies. The nuclear medicine program provides clinical and didactic instruction in



positron emission tomography and nuclear cardiology imaging. As these technologies grow, the career opportunities grow as well.

Many nuclear medicine technologists work in cardiology offices or clinics and in P.E.T. imaging centers.

Salary Information

Median annual salaries of nuclear medicine technologists were \$48,750 in 2002, with the middle 50 percent earning between \$41,460 and \$57,200 a year. Nuclear medicine technology salaries have broad regional variation.

General Admissions Criteria

Admission decisions are based on college grade point averages; personal interviews; and assessment of motivation, knowledge of the discipline(s) and personal qualities appropriate for the profession and for successful completion of the program. Completion of the liberal arts (core) courses and current CPR and first aid certification are required before beginning the program (see the *Frequently Asked Questions* section for more information on core completion). Computer literacy is also expected; the nuclear medicine technology curriculum contains a strong online instructional component.

A minimum overall GPA of 2.30 is required for previous college work. Competitive GPAs for accepted applicants are typically much higher than the minimum requirements.

Applicants whose first language is not English must submit official TOEFL scores, with a minimum score of 550 paper-based (213 computer-based) required for consideration. Information on the TOEFL may be obtained through the Office of Academic Admissions.

All applicants must document at least eight hours of shadowing/observation in nuclear medicine technology, prior to or concurrent with application. Additional shadowing (40-50 hrs.) is recommended for applicants who have no prior health care work experience. This experience can be arranged by contacting a convenient institutional imaging or therapy department. Documentation must be submitted directly to the department on facility letterhead and signed by an autho-

Courses to Take the First Two Years

The courses required to graduate from MCG comprise a core curriculum divided into six categories (Areas A-F). The options for completing these prerequisites for transfer to MCG are listed below.

A. Essential Skills 9 semester hours
 English Composition I 3 hours
 English Composition II 3 hours
 (Literature based)

College Algebra, Mathematical Modeling, Trigonometry,
 Pre-calculus or Calculus 3 hours

B. Institutional Options** 4-5 semester hours

Introduction to Computers
 Critical Thinking
 Creative Writing
 Ethics
 Health and Wellness
 Statistics
 Economics
 Speech
 Medical Terminology
 Any approved guided elective from Area F

C. Humanities and

Fine Arts** 6 semester hours

Ethics
 Foreign Language
 Speech, Oral Communications
 Literature
 Philosophy
 Drama, Art or Music Appreciation
 Logic
 Electives in Humanities and Fine Arts
 Religion

D. Science, Mathematics and Technology 10-11 semester hours

One eight-hour laboratory course sequence in chemistry or physics and an additional course in science, mathematics or technology.

E. Social Science** 12 semester hours

United States History
 United States Government
 Other History
 Economics
 Psychology
 Sociology
 Anthropology
 Racial and Ethnic Minority Groups
 Lower division electives in Psychology and Sociology

F. Courses Appropriate

to the Major 18 semester hours

Anatomy and Physiology I and II w/labs . 8 hours
 Chemistry or Physics w/lab* 4 hours
 (whichever was not taken as a sequence in Area D)
 Computers
 Guided electives. 6-10 hours
 Statistics, Precalculus and other Math,
 Science, Business/Management, Education,
 Health Professions, Developmental
 Psychology, Speech.

* If this is taken in another area of the core, the hours would be taken in additional guided electives.

** If a student planning to transfer to MCG from another school in the University System of Georgia has completed this area with courses taken there or at another institution from which MCG accepts transfer credit, MCG will accept the area as satisfied. A student planning to transfer from a school not in the University System of Georgia should choose from the list of courses.

Estimated Full-Time Academic Expenses

	Tuition	Fees	Books/Supplies/Other
Per semester	\$1,910*	327.50	1,000**
Columbus		273	
Gwinnett		158	

* Non-residents of Georgia pay an additional \$5,730 tuition per semester. Residents of Aiken and Edgefield counties in South Carolina receive a waiver of non-resident tuition.

** Costs vary by major. Please check with your department for details.

(Costs are for 2006-2007. All tuition charges, board, room rent or other charges are subject to change at the end of any academic term.)

Estimated Living Expenses

	On- or off-campus apartment	Commuter
9 months	\$13,869	\$9,864
12 months	18,492	13,152

alized agent of the facility where the shadowing/observation was conducted.

Technical Standards

In addition to demonstrating personal characteristics appropriate for a health professions career, students must satisfy general and specific technical standards for this program. Please visit www.mcg.edu/sah/brt/NMedstandards.htm to review these requirements.

Computer and Internet-Supported Programs

Students must have access to a high-speed (DSL or cable) personal computer. Most student and faculty communication, projects and research require Internet interaction and many lectures are presented online for repeated viewing. MCG faculty and staff are available for technical and instructional support seven days a week.

Financial Aid and Scholarships

Financial aid and other assistance is available. MCG participates in all federal student aid programs as well as state and private programs. MCG helps students fund their education through grants or scholarships, loans, a service commitment program and/or employment. Scholarships are available to rising seniors.

Distance Programs

The Nuclear Medicine Programs are currently offered to students in Athens, Atlanta, and Columbus through Gwinnett University Center in Atlanta, Georgia. Contact Admissions for more information. Students enrolled in the distant program meet with NM faculty at Georgia Gwinnett College in Lawrenceville 1-2 times per week, and travel to the Augusta campus 3-4 times per year for laboratories and advisement

Academic Common Market

The MCG Department of Biomedical and Radiologic Technologies participates in the Academic Common Market for nuclear medicine technology. Students from South Carolina may petition their home state to learn whether they qualify for in-state tuition at MCG.

Accreditation/Review

Commission on Accreditation of Allied Health Education Programs

35 East Wacker Drive, Suite 1970
Chicago, IL 60601-2208
(312) 553-9355

Nuclear Medicine Technology

Joint Review Committee on Education Programs in Nuclear Medicine Technology
One 2nd Avenue East, Suite C
Polson, MT 59860-2320
(406) 883-0003

When and How to Apply

For best chance of acceptance, application to this program should be made during the fall preceding the fall in which admission is sought to allow adequate time receipt of all required information. All application materials should be RECEIVED in MCG's Office of Academic Admissions by March 1. Applications completed after this date are considered on a remaining space available basis. Complete applications include the application, references, official academic materials, documentation of shadowing hours, and documentation of professional certifications, if applicable. If accepted to the program, documentation of current CPR and First Aid certification is required upon enrollment. Accepted students must also undergo criminal background check and drug screening.

How to Get an Application

To receive an application for this degree program, visit www.mcg.edu/admissions, or call or write:
Office of Academic Admissions
170 Kelly Building—Administration
Medical College of Georgia
Augusta, Georgia 30912
Telephone: (706) 721-2725
1-800-519-3388

E-mail: underadm@mcg.edu
Web site: www.mcg.edu/admissions

Frequently Asked Questions

I'm interested in radiologic sciences, but I'm not sure which major I want to pursue. Should I apply to all majors and decide later?

No. Each major is different enough to require detailed investigation by the applicant. A blanket application to the various majors suggests lack of effort to sufficiently determine which one or two majors are the best fit. Applicants are encouraged to read about the fields, do clinical observations and speak with professionals to make an informed decision. Volunteer or paid work is not required, but applicants must spend at least eight hours observing each major area to which they apply (more shadowing is strongly recommended for applicants without previous health care training or experience). The department can arrange observations if you need assistance in arranging them.

Can I work part time while in the program?

Most of our curriculum is full time. Because of requirements for clinical practice, students generally spend 35 to 40 hours a week in class, labs and clinical practice. This does not include time for study. Our experience has shown that students who attempt rigorous work commitments (more than 15 hours a week) in addition to the rigorous school schedule, especially outside Augusta, have not been highly successful in program performance. If you must maintain employment, limit your work to 10 to 20 hours per week, preferably on weekends. Most senior-level courses are designed for flexible student-directed learning to accommodate multiple lifestyle needs.

Can I do my clinical practicum requirements at my place of employment or at a facility that I designate?

Clinical practicum must be taken at a facility with and MCG affiliation agreement and cannot be compensated by the facility. MCG has sufficient affiliates in local areas and across the state to meet student needs.

Can I attend the program part time?

All entry-level courses (junior year, certificate and senior-level courses) are full time. Advanced courses (senior courses for single majors) may be taken part time. In fact, we have programs through which students may complete the senior year over a two-year period, since courses are available to suit a variety of lifestyles and schedules.

Nuclear medicine technology is currently the only radiologic science program available to non-credentialed students requiring entry-level clinical education. The program offers limited clinical and instructional settings in Atlanta, Athens and Columbus.

Must I complete all my prerequisite core courses before I can be accepted?

Yes. Completion of the core curriculum prior to starting the program is required. We can, however, consider your application before you have completed all of the prerequisites. There is a page in the application to indicate where and when you took or plan to take each prerequisite. Make sure the courses you need will be offered the semester you plan to take them.

What do you mean by proof of certification in CPR and first aid?

We will accept a course titled First Aid on your transcript or a copy of your card indicating that you completed a first aid course. You must send us a copy of your card showing CPR certification valid through your first semester on campus. If your CPR certification has expired, you must complete a recertification course. Your certification must remain current through your program of study here.

Can I enter the MCG program during spring semester?

Our courses are designed so that fall semester courses are prerequisite to spring semester courses. New students begin only during fall semester.

If I complete all prerequisites, am I guaranteed acceptance to the program?

No. Applicants are considered for interview on several factors, of which grade point average and prerequisite course completion are only two. Application review begins in September and applicants who meet prerequisite standards early are considered first for interviews, which begin in February. Because the applicant pool is large and competitive for a limited number of positions, we encourage you to apply in the fall.

Do I have to have a criminal background check and drug screening?

If you are accepted to a BRT program you will be required to undergo a criminal background check and drug screening (at your expense). This process is necessary for students to comply with clinical education requirements.

Students will be notified of the process to complete the check and screening upon acceptance to a BRT program. This process is NOT part of the application process.