

Bachelor of Science in Nuclear Medicine

Technology

Nuclear Medicine Technology (BSNMT)

<http://www.odu.edu/mdts/nuclear-medicine> (<http://www.odu.edu/mdts/nuclear-medicine/>)

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Nuclear medicine technology is the medical specialty that utilizes sealed and unsealed radioactive materials in the diagnosis and treatment of disease. The nuclear medicine technology program at Old Dominion University is designed to prepare individuals as entry-level nuclear medicine technologists. Upon successful completion of the program, graduates are eligible to sit for a national exam for certification as a nuclear medicine technologist.

Nuclear medicine technologists are allied health professionals certified in nuclear medicine technology who, under the direction of an authorized physician user, are committed to applying the art and skill of diagnostic and therapeutic nuclear medicine procedures through the safe and effective use of radionuclides. Responsibilities include but are not limited to: direct patient contact, the preparation and administration of radiopharmaceuticals, patient imaging procedures including computer processing, laboratory testing, patient preparation, quality control and radiation safety. Nuclear medicine technologists can be employed in hospitals and imaging centers.

The program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology.

Admission

All admission materials must be received by October 15. Interviews are then scheduled for early November. All applicants must be in good academic standing (cumulative GPA of 2.0 or greater).

Continuance Policy

1. A grade of C (2.00) or better is required in all NMED courses to continue in the nuclear medicine technology program.
2. A cumulative grade point average of 2.00 or better is required to continue in the nuclear medicine technology program.
3. A nuclear medicine technology student who leaves the major must apply for readmission to the major.
4. A nuclear medicine technology student who fails a nuclear medicine technology course and is readmitted to the program is allowed to repeat the failed course only once.
5. A student who leaves the major and is readmitted may be required to take additional course work prior to or concurrent with readmission at the discretion of the Program Director.
6. A student may be readmitted to the nuclear medicine technology major only once.
7. A student seeking readmission to a clinical course is responsible for securing an approved clinical site. Preference for clinical space is always given to currently enrolled students and is at the discretion of the NMED Program Director and Program Clinical Coordinators and in alignment with the Joint Review Committee on Educational Programs in Nuclear Medicine Technology policies.

Note: Policies and procedures are outlined in more detail in the School of Medical Diagnostic & Translational Sciences Nuclear Medicine Technology Program Student Handbook Program Policies. All students accepted into

the Nuclear Medicine Technology major are responsible for familiarizing themselves with this handbook upon entry into the major.

Requirements

Lower-Division General Education

Written Communication (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#written)	6
Oral Communication (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#oral)	3
Mathematics (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#math)	3
Language and Culture (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#language)	0-6
Information Literacy and Research (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#information)	3
Human Behavior (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#behavior)	3
Human Creativity (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#creativity)	3
Interpreting the Past (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#interpret)	3
Literature (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#literature)	3
Philosophy and Ethics (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#philosophy)	3
The Nature of Science (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#nature)	8
Impact of Technology (https://catalog.odu.edu/undergraduate/requirements-undergraduate-degrees/#impact)	3

Written Communication: grade of C or better required in both courses

Mathematics: STAT 130M and MATH 102M or MATH 103M

Philosophy and Ethics: PHIL 345E preferred; 300/400 level P or E course meets upper division general education/Option D

Nature of Science: CHEM 105N and CHEM 106N, CHEM 107N and CHEM 108N, and PHYS 101N and PHYS 102N

Impact of Technology: HIST 304T preferred but any 300/400 level T course EXCEPT DNTH 440T meets upper-division general education/Option D

Upper-Division General Education

- Option A. Approved Disciplinary Minor, 12 hours minimum; also second degree or second major.
- Option B. Interdisciplinary Minor (specifically 12 hours, 3 of which may be in the major)
- Option C. An approved Certification Program such as teaching licensure
- Option D. Two Upper-Division Courses from outside the College of Health Sciences and not required by the major (6 hours)

Requirements for Graduation

Requirements for graduation include the following:

- Minimum of 120 credit hours.
- Minimum of 30 credit hours overall and 12 credit hours of upper-level courses in the major program from Old Dominion University.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken toward the major.
- Minimum overall cumulative grade point average of C (2.00) in all courses taken toward a minor.

- Completion of ENGL 110C, ENGL 211C or ENGL 231C, and the writing intensive (W) course in the major with a grade of C or better. The W course must be taken at Old Dominion University.
- Completion of Senior Assessment.

A variety of clinical facilities in the Hampton Roads area are utilized for clinical education experiences. Students are responsible for providing their own transportation to these sites. Students must meet established programmatic technical standards.

Departmental Requirements

BIOL 240	Fundamentals of Anatomy and Physiology I	4
or BIOL 250	Human Anatomy and Physiology I	
BIOL 241	Fundamentals of Anatomy and Physiology II	4
or BIOL 251	Human Anatomy and Physiology II	
Total Credit Hours		8

Students must complete the following courses (or equivalent) prior to entering the nuclear medicine technology program: BIOL 240 or BIOL 250 and BIOL 241 or BIOL 251, CHEM 105N, CHEM 106N, CHEM 107N and CHEM 108N, PHYS 101N and PHYS 102N, and MATH 102M and STAT 130M.

Nuclear Medicine Technology Major

General Education

Complete lower-division requirements	52-58
Complete upper-division requirements	0-6

Departmental Requirements

Complete departmental requirements	8
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Nuclear Medicine Technology

See requirements below	57
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Total Credit Hours	117-129
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Course	Title	Credit Hours
Third Year		
Fall		
NMED 300	Medical Terminology	3
NMED 331	Fundamental Concepts in Nuclear Medicine Technology	4
Credit Hours		7
Spring		
NMED 332	Nuclear Instrumentation	4
NMED 335	Radiation Health	3
NMED 401	Nuclear Medicine Technology I	4
NURS 393	Clinical Skills for Nonnursing Majors	2
Credit Hours		13
Summer		
NMED 440	Clinical Nuclear Medicine Technology I	8
Credit Hours		8
Fourth Year		
Fall		
NMED 450	Clinical Nuclear Medicine Technology II	8
NMED 402	Nuclear Medicine Technology II	4
NMED 403	Radiopharmacy	3
Credit Hours		15

Spring

NMED 460	Clinical Nuclear Medicine Technology III	8
NMED 410	Nuclear Medicine and Molecular Imaging	3
NMED 475W	Administration and Management in Nuclear Medicine Technology	3
Credit Hours		14
Total Credit Hours		57

Elective credit may be needed to meet the minimum requirement of 120 credit hours.

Degree Program Guide

The Degree Program Guide is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

Course	Title	Credit Hours
Freshman		
Fall		
ENGL 110C	English Composition	3
CHEM 105N	Introductory Chemistry	3
CHEM 106N	Introductory Chemistry Laboratory	1
MATH 102M or MATH 103M	College Algebra or College Algebra with Supplemental Instruction	3
Information Literacy		3
Credit Hours		13
Spring		
ENGL 211C or ENGL 231C	Writing, Rhetoric, and Research or Writing, Rhetoric, and Research: Special Topics	3
CHEM 107N	Introductory Organic and Biochemistry	3
CHEM 108N	Introductory Organic and Biochemistry Laboratory	1
STAT 130M	Elementary Statistics	3
Interpreting the Past		3
Credit Hours		13
Sophomore		
Fall		
PHYS 101N	Conceptual Physics	4
Literature		3
Oral Communication		3
Human Behavior		3
Credit Hours		13
Spring		
PHYS 102N	Conceptual Physics	4
NMED 300	Medical Terminology	3
Human Creativity		3
Elective (if needed)		3
Credit Hours		13

Summer

BIOL 240 or BIOL 250	Fundamentals of Anatomy and Physiology I or Human Anatomy and Physiology I	4
BIOL 241 or BIOL 251	Fundamentals of Anatomy and Physiology II or Human Anatomy and Physiology II	4

Credit Hours **8**

Junior**Fall**

NMED 331	Fundamental Concepts in Nuclear Medicine Technology	4
PHIL 345E	Bioethics	3
Impact of Technology (Option D 300/400)		3
Elective (if needed)		0-3

Credit Hours **10-13**

Spring

NMED 332	Nuclear Instrumentation	4
NMED 335	Radiation Health	3
NMED 401	Nuclear Medicine Technology I	4
NURS 393	Clinical Skills for Nonnursing Majors	2

Credit Hours **13**

Summer

NMED 440	Clinical Nuclear Medicine Technology I	8
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Credit Hours **8**

Senior**Fall**

NMED 402	Nuclear Medicine Technology II	4
NMED 403	Radiopharmacy	3
NMED 450	Clinical Nuclear Medicine Technology II	8

Credit Hours **15**

Spring

NMED 410	Nuclear Medicine and Molecular Imaging	3
NMED 460	Clinical Nuclear Medicine Technology III	8
NMED 475W	Administration and Management in Nuclear Medicine Technology	3

Credit Hours **14**

Total Credit Hours **120-123**