NUCLEAR MEDICINE TECHNOLOGY

Nuclear medicine is a medical specialty that uses safe, painless, and cost-effective techniques to image the body and treat disease. Nuclear medicine imaging is unique in that it documents organ function and structure, in contrast to diagnostic radiology, which is based upon anatomy. It is a method of gathering information that may otherwise be unavailable, require surgery, or necessitate more expensive diagnostic tests.

Nuclear medicine uses very small amounts of radioactive materials, or radiopharmaceuticals, to diagnose and treat disease. Radiopharmaceuticals are substances that are attracted to specific organs, bones, or tissues. The radiopharmaceuticals used in nuclear medicine emit gamma rays that can be detected externally by special types of cameras: gamma or PET/CT scanners. These cameras work in conjunction with computers used to form images to provide data and information about the area of the body being imaged. The amount of radiation from a nuclear medicine procedure is comparable to that received during a diagnostic x-ray.

Today, nuclear medicine offers procedures that are helpful to a broad span of medical specialties, from pediatrics, to cardiology, to oncology. There are almost one hundred different nuclear medicine imaging procedures available which include every major organ of the human body.

DEGREES OFFERED
- Bachelor of Science in Nuclear Medicine Technology

EDUCATIONAL REQUIREMENTS
Nuclear medicine technologists are required to earn a bachelor's degree from an accredited program and pass a certification examination from a national certifying agency. These individuals must have an interest in scientific and technical skills, possess strong math skills, communicate effectively, and be able to interact compassionately and effectively with individuals ranging from healthy to terminally ill.

ADMISSION REQUIREMENTS
- Minimum cumulative GPA is 2.7/4.0 scale.
- Minimum ACT scores are 22 composite, with no subsection lower than a 20. Equivalent SAT scores are acceptable.

Professional coursework in the nuclear medicine program is concentrated in the fourth year of the curriculum. Students may enter as a freshman or as a transfer, depending on availability. Once admitted to the program, students must maintain a cumulative grade point average of 2.70 to remain in good standing.

STUDENT ACTIVITY
Students are encouraged to participate in all of the activities that SLU offers. This includes all of the organizations, facilities, and events that encompass student life. Nuclear medicine technology students are encouraged to join and participate in the functions of the Society of Nuclear Medicine.

WHY CHOOSE SLU
- Opportunities to participate in professional conferences with SLU faculty and fellow students
- Interprofessional focus of core curriculum to build a team approach to health care
- Instruction by professionally credentialed faculty
- Flexible curriculum that allows diverse areas of concentration
- Medically relevant coursework ideal for pre-professional studies
- Undergraduate opportunities to conduct research and produce projects/papers acceptable for publication and presentation at professional conferences
- Pre-Med and Pre-Physician Assistant curriculum options
CAREER OPPORTUNITIES
Graduates can work as technologists in hospitals and clinics. They also may seek positions in information technology, healthcare administration, sales and training, radiopharmacy labs, teaching, and other related fields. Nuclear medicine provides an excellent pre-med curriculum. About 20% of graduates proceed to graduate school, with about 50% of the remaining class enrolling in graduate school within five years of employment. Many students attend graduate school part time, with assistance from their place of employment. There are many opportunities for nuclear medicine technologists in various locations. Jobs can be found in the following settings:
• Medical and surgical hospitals
• Freestanding clinics

Some jobs are classified as traveling jobs where the employee provides temporary help to departments that are short-staffed for a short period of time. These technologists travel regularly, with length of stay and location varying.

Career advancement opportunities from the position of staff technologist may lead to areas of administration, education, sales, or research.

JOB RESPONSIBILITIES
An NMT has many responsibilities that encompass a wide range of skills. Some responsibilities include:
• Preparation, calibration, and administration of radioactive chemical compounds, known as radiopharmaceuticals.
• Performs diagnostic imaging procedures using radiation-detection technology.
• Administration of radioactive tracers used to image the organs of the human body.
• Operation of imaging technology, laboratory and computer instrumentation.
• Provides images, data analysis and patient information to the physician for diagnostic interpretation.

EARNINGS POTENTIAL
The general salary range depends on geographic location, years of experience, and education. The median annual wage for nuclear medicine technologists is $66,660, according to the Bureau of Labor Statistics.

PROFESSIONAL ASSOCIATIONS
Membership in professional organizations offer the nuclear medicine technologist the opportunity to attend conferences, workshops and classes in all areas of nuclear medicine.

SNM
Advancing Molecular Imaging and Therapy
For more information on the Society of Nuclear Medicine (SNM) please visit www.snm.org/

FOR MORE INFORMATION
Please contact: Brion Abel, Recruitment Specialist
Phone: 314-977-2570
Email: dchs@slu.edu
Website: MIRT.SLU.EDU

CONNECT
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twitter.com/SLUDCHS
# CURRICULUM AND COURSE SCHEDULE

The curriculum and schedule are subject to change at the Department's discretion.

**SAINT LOUIS UNIVERSITY**

**DOISY COLLEGE OF HEALTH SCIENCES**

**B.S. IN NUCLEAR MEDICINE TECHNOLOGY - STANDARD OPTION**

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**FRESHMAN YEAR**

**FALL Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
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<tr>
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<td>MATH 120</td>
<td>COLLEGE ALGEBRA</td>
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<tr>
<td>HIST 111</td>
<td>ORIGINS OF MOD WORLD</td>
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<tr>
<td>CHEM 153</td>
<td>PRIN OF CHEMISTRY I</td>
<td>4</td>
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<tr>
<td>PHIL 105</td>
<td>INTRO TO PHILOSOPHY</td>
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**SPRING Semester**

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<td>MATH 132</td>
<td>SURVEY OF CALCULUS</td>
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<td>MATH 130</td>
<td>ELEM STATISTICS</td>
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<td>CHEM 154</td>
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<td>PSY 101</td>
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**SOPHOMORE YEAR**

**FALL Semester**

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<td>INTRO TO INFO TECH MGMT</td>
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<tr>
<td>HSCI 301</td>
<td>MEDICAL TERMINOLOGY</td>
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<td>BIOL 104</td>
<td>PRIN OF BIOLOGY I</td>
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<td>THEO 100</td>
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<td>HSCI 200</td>
<td>US HEALTH CARE SYSTEM</td>
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**JUNIOR YEAR**

**FALL Semester**

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<td>PHYS 122</td>
<td>GENERAL PHYSICS I</td>
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<td>HSCI 370</td>
<td>EVIDENCE IN HEALTH CARE</td>
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<td>XXXX</td>
<td>HUMANITIES ELECTIVE</td>
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<td>HSCI 320</td>
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<td>PHYS 124</td>
<td>GENERAL PHYSICS II</td>
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<tr>
<td>HSCI 470</td>
<td>HEALTH CARE &amp; HR MGMT</td>
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<td>ORES 231</td>
<td>INTRO TO CLINICAL MED</td>
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<td>SOC 110</td>
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**SENIOR YEAR**

**FALL Semester**

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<td>NMT 432</td>
<td>RADIOCHEMISTRY</td>
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<td>NMT 433</td>
<td>NUCLEAR MED INSTRUM</td>
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<td>NMT 434</td>
<td>CLINICAL NUCLEAR MED</td>
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<td>NMT 435</td>
<td>NM INFORMATION SYSTEMS</td>
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**SPRING Semester**

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<td>RADIOCHEM PRACTICUM</td>
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<td>EMERGING TECHNOLOGIES</td>
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<td>NMT 498</td>
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**SUMMER Semester**

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<tr>
<td>NMT 499</td>
<td>CLINICAL PRACTICUM</td>
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Total Hours for Graduation: 129
NAURAL MEDICINE TECHNOLOGY

Saint Louis University offers a two-plus-two opportunity that is designed to assist students from community colleges in choosing their courses that will fulfill the core requirement for a bachelor’s degree in Nuclear Medicine Technology.

ASSOCIATE OF APPLIED SCIENCE IN RADIOGRAPHY (AAS)

For those students who currently have, or are working towards an AAS degree, Saint Louis University allows for a maximum of 64 credit hours (to include a 30 credit hour block for AAS Radiography Program Professional Portion and 34 credit hours that are general) earned at the community college to be applied towards the bachelor’s degree in nuclear medicine technology.

FROM COMMUNITY COLLEGE  
Credit Hrs.
AAS Radiography Program Professional Portion  30

COMMUNITY COLLEGE REQUIREMENTS

Transfer credits to be completed at the community college.

College Algebra 3
Biology I 4
Anatomy and Physiology I 3
Anatomy and Physiology II 3
Composition and Rhetoric I 3
Composition and Rhetoric II 3
General Psychology 3
Professional Communication 3
American History or Origins of Modern World 3
Medical Terminology 3
Sociology 3

GENERAL EDUCATION COURSES FOR SLU BSNMT

Classes to be taken and completed at Saint Louis University.

Survey of Calculus 3
General Chemistry I 4
General Chemistry II 4
Medico-Legal Aspects 3
Statistics 3
IPE 350 HC Systems 3
IPE 420 Applied Decision-Making 3
IPE 460 Evidence Based Health Care 2
Pathophysiology 3
Theology 3
Philosophy 3

Credit Hrs.
Nuclear Medicine Technology Curriculum 31
Total Credit Hours for the Bachelor of Science - Nuclear Medicine Technology 129

Selection of student for admission is on a space available basis, and final acceptance decision is made by the Nuclear Medicine Technology Program Director.

ADMISSION REQUIREMENTS

Minimum admission criteria include:
• AAS degree in Radiography awarded
• Minimum cumulative GPA of 2.7 on a 4.0 scale
• Successful completion of the ARRT registry exam in Radiography, and meets the Nuclear Medicine Technology Program’s technical standards.

Two years at a community college plus two years at SLU equals you earning a bachelor of science in nuclear medicine technology.
WHAT IS NUCLEAR MEDICINE?
Nuclear medicine is a medical specialty that uses safe, painless, and cost effective techniques to create images of organs, body structure and treat disease. It is a method of gathering information that may otherwise be unavailable, require surgery or necessitate more expensive diagnostic tests.

Today, nuclear medicine offers procedures that are helpful to a broad span of medical specialties: pediatrics, cardiology, oncology. There are nearly one hundred different nuclear medicine imaging procedures available and include every major organ of the human body.

WHAT IS A NUCLEAR MEDICINE TECHNOLOGIST?
A nuclear medicine technologist (NMT) is an allied health professional skilled in the art and science of diagnostic imaging. An NMT works directly with patients during imaging procedures and works closely with nuclear medicine physicians and nurses. An NMT has many responsibilities that encompass a wide range of skills. Some responsibilities include:
- Preparation, calibration, and administration of radioactive chemical compounds, known as radiopharmaceuticals.
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