

# Nuclear Medicine Technology Major - Bachelor of Science (BS)

## Major requirements

(College of Science and Health)

## Nuclear Medicine Technology admission policy

The university sponsors up to 30 clinical interns each year. The size of the nuclear medicine technology program is limited by these internships. Students must make formal application to the program during the fall semester of either their sophomore or junior year (see advisor). Refer to the sample degree plan tab. A Nuclear Medicine Technology Professional Program Selection Committee composed of representatives from the university, healthcare community, and the program's clinical affiliates evaluates each application on the basis of the applicant's past academic performance (a minimum cumulative GPA of 2.50 is required for admission into the professional program), their references, their past work experience, and the results of a formal interview. Based on these factors, the applicants are ranked and accepted for entry into the professional program.

## Nuclear Medicine Technology admission to internship and completion of degree policy

Those students admitted to the professional curriculum will be eligible for an internship upon successful completion of the on-campus course requirements and selection by a clinical affiliate. Acceptance into the professional program does not guarantee an internship at a hospital. The hospitals select students for internships. During the senior year, clinical internship students will register for (or be allowed to transfer in from Mayo's NMT program) a minimum of 34 semester credits in clinical courses and pay full tuition and fees. Upon successful completion of the internship and all other university requirements, students are awarded a Bachelor of Science degree with a major in nuclear medicine technology.

Hospital educational programs of nuclear medicine technology are accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT). Graduates are eligible to take the examination for certification as a certified nuclear medicine technologist offered by the Nuclear Medicine Technology Certification Board (NMTCB) or as a nuclear medicine technologist offered by the American Registry of Radiologic Technologists (ARRT).

### Nuclear medicine technology affiliated internship sites:

- Mayo Clinic School of Health Sciences, Rochester, MN<sup>1</sup>
- Froedtert Hospital, Milwaukee, WI
- Marshfield Clinic, Marshfield, WI
- Aurora St. Luke's Hospital, Milwaukee, WI
- Northwestern Memorial Hospital, Chicago, IL
- UW Health Hospitals and Clinics, Madison, WI
- Sanford USD Medical Center, Sioux Falls, SD

- UM Fairview Medical Center, Minneapolis, MN
- Sanford Medical Center, Fargo, ND
- Gundersen Health, La Crosse, WI

<sup>1</sup> Nuclear Medicine Technology students who select to complete the required year-long clinical at the Mayo Clinic School of Health Sciences (MCSHS) enroll at MCSHS rather than at UW-La Crosse. The courses taken during the year-long clinical at MCSHS meet UW-La Crosse NMT program requirements. The student must request an official transcript to be sent to UW-La Crosse from MCSHS. Upon successful completion of the clinical and all other graduation requirements, the students are awarded the Bachelor of Science degree from UW-La Crosse. The Mayo Clinic School of Health Sciences (MCSHS) grants a Certificate of Completion in Nuclear Medicine Technology.

## Curriculum

104-108 credits, including internship

Code	Title	Credits
<b>Pre-professional requirements</b>		
BIO 105	General Biology <sup>2</sup>	4
BIO 312	Human Anatomy and Physiology I	4
BIO 313	Human Anatomy and Physiology II	4
CHM 103	General Chemistry I	5
CHM 104	General Chemistry II	5
CHM 300	Fundamental Organic Chemistry	4
CHM 302	Fundamental Organic Chemistry Laboratory	1
MTH 150	College Algebra (or higher) <sup>2</sup>	4
STAT 145	Elementary Statistics	4
Select one of the following:		4-8
PHY 134	Physics for Nuclear and Radiological Sciences	
PHY 103 & PHY 104	Fundamental Physics I and Fundamental Physics II	
Select one of the following:		3
PSY 100	General Psychology <sup>2</sup>	
SOC 110	Introduction to Sociology <sup>2</sup>	
SOC 120	Social Problems <sup>2</sup>	
<b>Professional core requirements</b>		
BIO 333	Radiation Biology	3
CHM 325	Fundamental Biochemistry	4
CHM 461	Nuclear Chemistry	4
HP 250	Medical Terminology for Health Professions	1
HP 310	Pathophysiology	4
NMT 201	Introduction to Nuclear Medicine Technology	1
NMT 314	Cross-Sectional Anatomy	1
NMT 344	Medical Ethics and Health Administration	2
NMT 360	Computed Tomography	2
NMT 391	Theranostics	1
NMT 398	Research Writing in Nuclear Medicine Technology	2
PHY 376	Introduction to Nuclear Science	3
<b>Recommended electives</b>		
BIO 306	Genetics	
BIO 432	Biology of Cancer	
CST 354	Health Communication	
SOC 420	Health Care and Illness	

SOC 422	Death, Dying, and Bereavement	
ECO 350	Health Economics	
ESS 201	Safety, First Aid and CPR	
MIC 230	Fundamentals of Microbiology	
NMT 499	Independent Study	
<b>Total Credits</b>		<b>70-74</b>

<sup>2</sup> This course can also fulfill general education requirements.

It is required that students have at least 8 hours of observation in a nuclear medicine department before they apply to the professional program. Students must have completed all courses taught at UWL prior to their clinical internship experience. All courses must be completed with a grade of "C" or above. A cumulative grade point average of 2.50 on a 4.00 scale is required for acceptance into the professional program, maintenance of accepted status, and for graduation with a major in nuclear medicine technology.

### Clinical Internship Requirements (34 credits)

Each NMT intern will enroll in clinical courses for a minimum of 34 credits from the following selection.

Code	Title	Credits
NMT 401	Management and Methods of Patient Care I	2
NMT 403	Anatomy, Physiology and Pathology	2-4
NMT 404	Management and Methods of Patient Care II	3
NMT 405	Radiation Protection	1-5
NMT 407	Clinical Instrumentation and Techniques	2-5
NMT 412	Clinical Nuclear Practicum I	3-9
NMT 413	Clinical Nuclear Practicum II	3-9
NMT 416	Nuclear Medicine Quality Control Practicum	1-3
NMT 417	Nuclear Radiation Physics and Instrumentation	2-5
NMT 418	Clinical Procedures Review I	1-3
NMT 419	Clinical Radiation Biology	1-3
NMT 422	Clinical Procedures Review II	1-4
NMT 423	Radiopharmacy and Pharmacology	1-5
NMT 427	Clinical Evaluation of Mathematical Data in Nuclear Medicine	1-5
NMT 429	Multimodality Imaging	1-5
NMT 499	Independent Study	3

All of the above courses are not required but a minimum of 34 credits must be earned in the array required by the clinical internship site.

## Degree requirements

All students must complete the general education, college core (waived for nuclear medicine technology majors), major/minor, and university degree requirements in order to qualify for a degree. The easiest way to track all of these requirements is to refer to the Advisement Report (AR) found in the Student Information System (WINGS) Student Center. All enrolled students have access to the AR.

- General education (<https://catalog.uwlax.edu/undergraduate/generaleducation/>)
- Baccalaureate degree requirements (p. 2)

## Baccalaureate degree requirements

Candidates for the Bachelor of Arts or the Bachelor of Science degrees must accomplish the following:

1. Fulfill the general education requirements.
2. Complete at least one ethnic studies (diversity) course.
3. Complete the courses prescribed by the Undergraduate Curriculum Committee for the degree desired in the respective school or college.
4. Earn a minimum of 120 semester credits with at least a 2.00 cumulative GPA.<sup>1, 2</sup>
5. At least 40 credits must be earned in 300/400 level courses. Transfer courses earned or transferred at the 300/400 level apply to this requirement.
6. Complete major and minor requirements with at least a 2.00 GPA<sup>1, 2</sup> in each major and minor (and concentration or emphasis, if selected).
7. A minimum of 30 semester credits in residence at UWL is required for graduation. (See undergraduate resident requirement (<https://catalog.uwlax.edu/undergraduate/academicpolicies/graduation/#undergraduate-residence-requirement>).)
8. Submit an application for graduation via the "Submit Intent to Graduate" link in the WINGS Student Center as soon as the student has registered for his or her final semester or summer term in residence. December and winter intercession graduates should apply by May 1. May and summer graduates should apply by December 1.

<sup>1</sup> Grade point average requirements for some programs will be considerably higher than 2.00. Re-entering students may be required to earn credits in excess of the 120 needed for graduation in any curriculum in order to replace credits earned in courses in which the content has changed substantially in recent years. Each case will be judged on its own merit.

<sup>2</sup> The grade point average recorded at the time the degree is awarded will not be affected by future enrollment.

**No degree will be awarded unless all requirements are fulfilled and recorded within 30 days after the official ending date of each term.**

## Sample degree plan

Below is a sample degree plan that can be used as a guide to identify courses required to fulfill the major and other requirements needed for degree completion. A student's actual degree plan may differ depending on the course of study selected (second major, minor, etc.). Also, this sample plan assumes readiness for each course and/or major plan, and some courses may not be offered every term. Review the course descriptions or the class timetable (<http://www.uwlax.edu/records/registration/>) for course offering information.

The sample degree plans represented in this catalog are intended for first-year students entering UWL in the fall term. Students should use the Advisement Report (AR) in WINGS (<https://wings.uwlax.edu>) and work closely with their faculty advisor(s) and college dean's office to ensure declaration and completion of all requirements in a timely manner.

### General Education Program

The general education curriculum (Gen Ed) is the common educational experience for all undergraduates at UWL. Sample degree plans include Gen Ed placeholders to ensure completion of the general education requirements. Courses may be rearranged to fit the needs or

recommendations of the student's program of study. Gen Ed courses may be taken during winter term (January between the semesters) and summer to reduce the course load during regular terms (fall and spring). Students should consult with their advisor and/or the college academic services director in their college/school for assistance with course and schedule planning. Refer to the general education requirements (<https://catalog.uwlax.edu/undergraduate/generaleducation/>) for more specific details.

At least 40 credits of the 120 credits required must be earned at the 300/400-level.

**Note:** New students and transfer students with less than 12 credits earned are required to take FYS 100 First-Year Seminar (3 cr.) during one of their first two semesters at UWL.

*This sample degree plan does not establish a contractual agreement. It identifies the minimum requirements a student must successfully complete, to qualify for a degree, in a format intended to assist the student in planning their academic career. Actual degree plans may differ.*

**This major is exempt from the CSH College Core requirement.**

## Nuclear medicine technology sample plan

### Year 1

Fall	Credits	Spring Credits
CHM 103 (Gen Ed 1008 Experiential Science) <sup>1</sup>	5	BIO 105 4
ENG 110 (Gen Ed 1002 Written Literacy)	3	PSY 100, SOC 110, or SOC 120 (Gen Ed 1009 Social and Behavioral Studies ) 3
FYS 100 (Gen Ed 1001 First-Year Seminar)	3	CHM 104 5
MTH 150, MTH 151, or higher (Gen Ed 1004 Quantitative Reasoning) <sup>2</sup>	4	CST 110 (Gen Ed 1003 Spoken Literacy) 3
		Gen Ed 1007 Arts and Aesthetics 2-3
	<b>15</b>	<b>17</b>

### Year 2

Fall	Credits Winter	Credits Spring	Credits
NMT 201	1 Gen Ed 1013 Cultures of Our World	3 BIO 313	4
BIO 312	4	STAT 145	4
CHM 300	4	PHY 134 <sup>3</sup>	4
CHM 302	1	Gen Ed 1011 Past That Define Us	3
Gen Ed 1005 Ethnic Diversity	3	Gen Ed 1007 Arts and Aesthetics	2-3
Gen Ed 1010 Stories We Tell	3		
December: apply for admission to NMT Program			
	<b>16</b>	<b>3</b>	<b>17</b>

### Year 3

Fall	Credits	Spring Credits
NMT 314	1	BIO 333 3
PHY 376	3	CHM 461 4

HP 310	4	NMT 344	2
HP 250	1	NMT 360	2
CHM 325	4	NMT 391	1
Gen Ed 1012 Planet That Sustains Us	3	NMT 398	2
		Gen Ed 1006 Mind and Body	3
	<b>16</b>		<b>17</b>
<b>Year 4</b>			
<b>Fall</b>	<b>Credits</b>	<b>Spring Credits</b>	
Clinical Internship	17	Clinical Internship	17
	<b>17</b>		<b>17</b>

**Total Credits: 135**

<sup>1</sup> CHM 103 requires completion of MTH 150 or math placement into MTH 151 or higher.

<sup>2</sup> MTH 150 or higher required for NMT major requirements.

<sup>3</sup> Or PHY 103 and PHY 104.