

Nuclear Medicine Technology, BS

Requirements

The Bachelor of Science in nuclear medicine technology requires a minimum of 120 s.h. Work for the degree includes a set of courses that are prerequisite to entering the major, 60 s.h. of coursework in the major, and elective coursework sufficient to complete the minimum of 120 s.h. required for graduation. Registered nuclear medicine technologists interested in earning a Bachelor of Science degree by distance education should see the Radiation Sciences RT to BS (Online) section of the catalog.

Students who have declared a nuclear medicine technology interest but have not yet applied and been accepted to a professional program are advised by the University of Iowa Academic Advising Center. After they have been accepted to a professional program, they are advised by the Radiation Sciences Office of Student Affairs.

Upon successful completion of the professional program, students earn a bachelor's degree and are eligible to apply for the nuclear medicine technology national certification examinations.

The Bachelor of Science in nuclear medicine technology requires the following coursework.

Prerequisites to the Nuclear Medicine Technology Major

Students must complete a total of 60 s.h. of college coursework, including the following prerequisite courses, by the end of the spring semester before they enter the program and the major. Additionally, students must have earned an overall cumulative grade-point average (GPA) of at least 2.50, a UI GPA of at least 2.00, and at least a 2.00 term GPA in the spring semester immediately preceding the start of the nuclear medicine program.

Students are advised for success based on academic strength, not necessarily for a four-year plan. Therefore, prerequisites may take more than two years to complete.

| Course # | Title | Hours |
|-----------------------------------|--|-------|
| Rhetoric | | |
| RHET:1030 | Rhetoric: Writing and Communication | 4-5 |
| Chemistry With Laboratory | | |
| CHEM:1110 | Principles of Chemistry I | 4 |
| Anatomy With Laboratory | | |
| One of these: | | |
| HHP:2100 & HHP:2110 | Human Anatomy and Human Anatomy Laboratory | 4 |
| HHP:3115 | Anatomy for Human Physiology With Lab | 5 |
| Physiology With Laboratory | | |
| One of these: | | |

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|---------------------|--|---|
| HHP:2400 & HHP:2410 | Fundamentals of Human Physiology and Human Physiology Laboratory | 4 |
| HHP:3500 & HHP:2410 | Human Physiology and Human Physiology Laboratory | 4 |
| HHP:3550 | Human Physiology With Laboratory | 5 |

Physics

One of these:

| | | |
|-----------|-------------------|-----|
| PHYS:1400 | Basic Physics | 3-4 |
| PHYS:1511 | College Physics I | 4 |

Psychology

| | | |
|----------|-----------------------|---|
| PSY:1001 | Elementary Psychology | 3 |
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Mathematics

One of these:

| | | |
|-----------|---|---|
| MATH:1020 | Elementary Functions | 4 |
| MATH:1440 | Mathematics for the Biological Sciences | 4 |

A more advanced mathematics course

Medical Terminology

| | | |
|-----------|-----------------------------------|---|
| CLSA:3750 | Medical and Technical Terminology | 2 |
|-----------|-----------------------------------|---|

Culture, Society, and the Arts

Students complete two courses for 3 s.h. each in two of these areas (total of 6 s.h.).

- Understanding Cultural Perspectives
- Historical Perspectives
- International and Global Issues
- Literary, Visual, and Performing Arts
- Values and Society

See GE CLAS Core (College of Liberal Arts and Sciences) in the catalog for approved courses in the areas listed.

Coursework in the Major

Students admitted to the nuclear medicine technology major spend two years in a clinical curriculum that is organized in accordance with the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT) Accreditation Standards for Nuclear Medicine Technologist Education. They complete coursework in the following areas: radiopharmacy, radiation safety and radiobiology, patient care, nuclear medicine and positron emission tomography (PET) procedures, radiation physics and instrumentation, quality management, healthcare administration, medical and professional ethics, research methodology, emotional intelligence, magnetic resonance imaging (MRI), and computed tomography (CT). Practical clinical rotations focus on nuclear medicine, PET and CT imaging, nuclear medicine therapy, clinical radiopharmacy, nuclear medicine computer applications, and quantification of radioactivity in vivo and in vitro.

Students must earn a grade of C or higher in each course required for the major.

| Course # | Title | Hours |
|-----------|--|-------|
| RSNM:3120 | Nuclear Medicine and PET Clinical Procedures I | 3 |

| | | |
|-----------|---|---|
| RSNM:3121 | Nuclear Medicine Technology Clinical Internship I | 3 |
| RSNM:3131 | Radiopharmaceuticals | 3 |
| RSNM:3132 | Radiation Safety and Regulations in Nuclear Medicine | 1 |
| RSNM:3140 | Foundations in Nuclear Medicine and PET | 1 |
| RSNM:3220 | Nuclear Medicine and PET Clinical Procedures II | 3 |
| RSNM:3221 | Nuclear Medicine Technology Clinical Internship II | 3 |
| RSNM:3231 | Nuclear Medicine Instrumentation | 3 |
| RSNM:3320 | Foundations in Nuclear Medicine Instrumentation | 2 |
| RSNM:3321 | Nuclear Medicine Technology Clinical Internship III | 4 |
| RSNM:4121 | Nuclear Medicine Technology Clinical Internship IV | 4 |
| RSNM:4221 | Nuclear Medicine Technology Clinical Internship V | 5 |
| RSNM:4222 | Nuclear Medicine Technology Capstone and Certification Exam Preparation | 5 |
| RSCT:4100 | Sectional Anatomy for Imaging Sciences | 3 |
| RSCT:4130 | Computed Tomography Physical Principles and QC | 4 |
| RSP:2120 | Patient Care for the Radiation Sciences | 3 |
| RSP:3130 | Introduction to Radiation Safety and Radiobiology | 1 |
| RSP:3210 | Medical Ethics and Law | 2 |
| RSP:3220 | Radiation Sciences Quality Management and Health Care Administration | 2 |
| RSP:4110 | Research Methodology for Radiation Sciences | 3 |
| RSRT:3220 | Emotional Intelligence for the Health Care Professional | 2 |

Total Hours **60**

Recommended Pre-Major Courses

The Nuclear Medicine Technology Program recommends that before students submit an application to the program and the major, they job-shadow a professional who works in nuclear medicine and positron emission tomography (PET) and gain hands-on patient care experience.

The following courses are recommended prior to the Nuclear Medicine Technology Program application.

| Course # | Title | Hours |
|---------------|----------------------------|-------|
| All of these: | | |
| CHEM:1120 | Principles of Chemistry II | 4 |

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|---------------|---|---|
| PSY:1010 | Your Brain Unlocked: Learning About Learning | 1 |
| RSP:1100 | Introduction to the Radiation Sciences | 1 |
| STAT:1020 | Elementary Statistics and Inference | 3 |
| One of these: | | |
| BIOL:1140 | Human Biology: Nonmajors | 4 |
| HHP:1400 | Human Anatomy and Physiology | 3 |
| One of these: | | |
| BAIS:1500 | Business Technology and Artificial Intelligence | 2 |
| CS:1020 | Principles of Computing | 3 |