Nuclear Medicine Technology

Director

Jay J. Smith

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Undergraduate major: nuclear medicine technology (BS)

Website: https://radsci.medicine.uiowa.edu/programs/nuclear-medicine-technology

Courses

Nuclear Medicine Technology Courses

RSNM:3120 Nuclear Medicine and PET Clinical Procedures I **3 s.h.**
Introduction to medical specialty of nuclear medicine and molecular imaging; basic theories of radiation protection, radiation physics and nuclear medicine instrumentation, radiopharmacy, nuclear medicine and positron emission tomography (PET) clinical procedures, professional standards of nuclear medicine technologist. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3121 Nuclear Medicine Technology Clinical Internship I **3 s.h.**
Hands-on clinical experience working with patients and performing routine nuclear medicine diagnostic imaging procedures under direct supervision of qualified clinical instructors. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3131 Radiopharmaceuticals **3 s.h.**
Introduction to radiopharmaceuticals; emphasis on physical, chemical, and biologic properties and their clinical use; fundamental aspects of radiopharmaceuticals including characteristics, preparation, quality control, and clinical use. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3132 Radiation Safety and Regulations in Nuclear Medicine **1 s.h.**
Continuation of RSP:3130; geared towards students enrolled in the nuclear medicine technology program.

RSNM:3140 Foundations in Nuclear Medicine and PET **1 s.h.**
Foundational instruction in the math and chemistry associated with radiopharmacy and instrumentation in the nuclear medicine technology profession, such as positron emission tomography (PET). Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3220 Nuclear Medicine and PET Clinical Procedures II **3 s.h.**
Proper execution of nuclear medicine and positron emission tomography (PET) procedures from a technical point of view; published protocols and procedures specific to University of Iowa Health Care; routine setup, common errors, artifact identification, computer processing protocols, and patient care concerns identified for each procedure; review of human anatomy, physiology, and pathology germane to understanding and proper execution of nuclear medicine procedures. Prerequisites: RSNM:3120. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3221 Nuclear Medicine Technology Clinical Internship II **3 s.h.**
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3121. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3231 Nuclear Medicine Instrumentation **3 s.h.**
Instruments used in medical imaging to generate and detect ionizing radiation (i.e., SPECT/CT and PET/CT scanners, dose calibrators, well counters, survey meters); focus on instrument quality control testing. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3320 Foundations in Nuclear Medicine Instrumentation **2 s.h.**
Foundations of nuclear medicine and positron emission tomography (PET) physics, computer systems, and instrumentation. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:3321 Nuclear Medicine Technology Clinical Internship III **4 s.h.**
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3221. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4121 Nuclear Medicine Technology Clinical Internship IV **4 s.h.**
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:3321. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4221 Nuclear Medicine Technology Clinical Internship V **5 s.h.**
Progressive responsibility working with patients and performing nuclear medicine and PET clinical procedures under direct supervision of qualified clinical instructors. Prerequisites: RSNM:4121. Requirements: Nuclear Medicine Technology Program enrollment.

RSNM:4222 Nuclear Medicine Technology Capstone and Certification Exam Preparation **5 s.h.**
Students prepare to take the Nuclear Medicine Technology Certification Board (NMTCB) and American Registry of Radiologic Technologists (ARRT) national certification exams. Requirements: Nuclear Medicine Technology Program enrollment.