# **NUCLEAR MEDICINE TECHNOLOGY (NMT)**

# NMT 4000 - Nuclear Medicine Procedures I Credit(s): 3 Credits

This course provides a study of the applications of radiopharmaceuticals used in diagnosis and therapy, different techniques and procedures utilized including indications for studies and correlation with various disease states. This course will also include concepts and applications dealing with patient care, the health care delivery systems, CPR, and health related agencies. This course will be offered starting spring 2022. Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

#### NMT 4100 - Radiation Protection

Credit(s): 3 Credits

Radiation units, regulations regarding maximum permissible exposures to radiation, radiation monitoring and surveying, and principles of radiation protection are included in the content. Concepts in radiobiology and dosimetry are covered. This course will be offered starting in Spring 2022. Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

#### NMT 4310 - Radiation Physics

Credit(s): 2 Credits

This course provides a study of atomic structure, radioactive decay modes, x-ray production, mathematics of decay, and interaction of radiation with matter. Radiation units, regulations regarding maximum permissible exposures to radiation, radiation monitoring and surveying, and principles of radiation protection are included in the content. Concepts in radiobiology and dosimetry are covered. Offered in fall through 2021. Beginning in fall 2022, this course will be termed, Radiation Physics and offered in fall for 2 credits.

#### **Restrictions:**

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4320 - Radiochemistry and Radiopharmacy Credit(s): 3 Credits

This course provides a study of basic radiopharmaceutical principles, generators, chemistry of radionuclides and their associated compounds, dosage forms, quality control and regulations. This course will include demonstrations and lab exercises in the radiopharmacy. (Offered every Fall)

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4330 - Nuclear Med Instrumentation Credit(s): 3 Credits

This course provides a study of Nuclear Medicine Instrumentation that is based on the theory of radiation detection with application to current imaging instruments. Students will be introduced to tomographic imaging cameras, including SPECT and PET/CT, with their necessary quality control. This course will include demonstrations and lab exercises to reinforce concepts explained in the classroom. (Offered every Fall) Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4340 - Nuclear Medicine Technology Procedures II Credit(s): 3 Credits

This course provides a study of the applications of radiopharmaceuticals used in diagnosis and therapy, different techniques and procedures utilized including indications for studies and correlation with various disease states. This course will also include concepts and applications dealing with patient care, the health care delivery systems, venipuncture, CPR, and health related agencies. Offered every fall through 2021. Beginning in fall 2022, this course will be offered for 3 credits.

Enrollment is limited to students with a major in Nuclear Medicine Tech.

### NMT 4350 - Nuclear Medicine Information Systems Credit(s): 3 Credits

This course introduces basic hardware and software components of a computer system. Emphasis will be given to understanding basic computer principles with application to data acquisition and processing in nuclear medicine. (Offered every Spring)

Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4410 - Imaging Clinical Practicum

Credit(s): 7 Credits

Students will perform in a wide variety of nuclear medicine procedures, including in vivo, diagnostic and therapeutic treatments in multiple clinical settings under the direct supervision of qualified medical professionals. This course will be offered through spring 2022.

#### **Restrictions:**

Enrollment is limited to students with a major in Nuclear Medicine Tech.

### NMT 4420 - Radiopharmacy Clinical Practicum Credit(s): 3 Credits

Students will prepare radiopharmaceuticals, perform associated quality control, dispense drugs and perform record keeping under the direct supervision of qualified medical professionals in a radiopharmacy setting. Offered every spring through 2022.

#### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4430 - Emerging Technologies

Credit(s): 3 Credits

This course is designed to introduce students to advanced imaging technologies and techniques. The course will include a study of cross sectional human anatomy. (Offered every Spring)

#### **Restrictions:**

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4700 - Nuclear Medicine Clinical Practicum I Credit(s): 4 Credits

Students will perform in a wide variety of nuclear medicine procedures, including in vivo, diagnostic and therapeutic treatments in multiple clinical settings under the direct supervision of qualified medical professionals. Students will prepare radiopharmaceuticals, perform associated quality control, dispense drugs and perform record keeping under the direct supervision of qualified medical professionals in a radiopharmacy setting. This course will be offered starting in fall 2022.

#### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

#### NMT 4710 - Nuclear Medicine Senior Seminar I

#### Credit(s): 1 Credit

This course is designed to provide didactic course work and professional development which support the NMT students as they are in the clinical practicum courses. Including resume building, critical reflections and clinical quizzes. This course will be offered starting in fall 2022.

#### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4800 - Nuclear Medicine Clinical Practicum II Credit(s): 2 Credits

Students will perform in a wide variety of nuclear medicine procedures, including in vivo, diagnostic and therapeutic treatments in multiple clinical settings under the direct supervision of qualified medical professionals. Students will prepare radiopharmaceuticals, perform associated quality control, dispense drugs and perform record keeping under the direct supervision of qualified medical professionals in a radiopharmacy setting. This course will be offered starting in winter session 2023.

#### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4900 - Nuclear Medicine Clinical Practicum III Credit(s): 12 Credits

Students will perform in a wide variety of nuclear medicine procedures, including in vivo, diagnostic and therapeutic treatments in multiple clinical settings under the direct supervision of qualified medical professionals. Students will prepare radiopharmaceuticals, perform associated quality control, dispense drugs and perform record keeping under the direct supervision of qualified medical professionals in a radiopharmacy setting. This course will be offered starting in spring 2023

#### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.

# NMT 4910 - Senior Seminar II

#### Credit(s): 2 Credits (Repeatable for credit)

This course is designed to provide didactic course work and mock exams which support the NMT students as they are in the clinical practicum courses. Beginning in spring 2023, this course will be termed Senior Seminar II and offered in spring for 2 credits.

# NMT 4960 - Capstone in Nuclear Medicine Credit(s): 1 Credit

Students enrolled in this course develop an individual research project that is a culmination of the knowledge obtained in the didactic and clinical coursework within the Nuclear Medicine Technology Program. This project is worked on independently with a faculty mentor and is required for graduation. (Offered every Spring)

### Restrictions:

Enrollment is limited to students with a major in Nuclear Medicine Tech.