

NUCLEAR MEDICINE TECHNOLOGY (NMT)

NMT1002 INTRODUCTION TO NUCLEAR MEDICINE TECHNOLOGY (3.00 Credits)

This course is designed to introduce the student to the field of nuclear medicine. Upon completion of this course, the student will have knowledge upon vital signs, patient care, universal precautions, and phlebotomy. The student will also receive a brief overview on radiation safety and the most common procedures performed in nuclear medicine.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

NMT1002L INTRODUCTION TO NUCLEAR MEDICINE LAB (1.00 Credits)

The student will be introduced to aspects of the healthcare field and the fundamentals of nuclear medicine by applying the skills learned in Introduction to Nuclear Medicine to fully prepare the student for the hospital and/or clinical site.

Total Contact Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$22.00

NMT1430 RADIATION SAFETY AND RADIOBIOLOGY (3.00 Credits)

This course is designed to educate students on the biological effects of radiation and also informs the student on the local, state and federal regulations regarding radiation protection and safety for themselves, others and the environment. The students will learn how to follow appropriate protection procedures; dose limits, the long and short term effects of radiation, and how to handle and dispose of radioactive materials; and practice personnel monitoring of radiation exposure.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

NMT1630 NUCLEAR PHYSICS AND MATHEMATICAL APPLICATIONS (2.00 Credits)

This course educates the student on the fundamentals of nuclear physics including nuclear terminology and important photon interactions that interplay with common radioisotopes used in Nuclear Medicine. The student will also gain knowledge of the various calculations necessary for a successful nuclear medicine technologist to attain.

Total Contact Hrs: 32.00

Lecture Hrs: 32.00

Complete all the courses in the following option:

- Prerequisite: NMT1002 (minimum grade: C)

NMT1714 NUCLEAR MEDICINE PATHOLOGY (3.00 Credits)

This course introduces the student to general pathological conditions with emphasis on those commonly seen in the field of nuclear medicine. Basic anatomy is reviewed in correlation to pathophysiology of disease. Descriptions of how diseases are classified, diagnosed and treated, as well as the natural course/prognosis of these diseases are presented. Topics will include; Pathogenesis, disease classification systems, and the study of specific disease of the respiratory, skeletal, gastrointestinal, hepatobiliary, urinary, cardiovascular & hematopoietic, nervous, endocrine and reproductive systems with nuclear medicine imaging considerations.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

NMT1804 NUCLEAR MEDICINE CLINICAL EDUCATION I (2.00 Credits)

This course introduces the student to general pathological conditions with emphasis on those commonly seen in the field of nuclear medicine. Basic anatomy is reviewed in correlation to pathophysiology of disease. Descriptions of how diseases are classified, diagnosed and treated, as well as the natural course/prognosis of these diseases are presented. Topics will include; Pathogenesis, disease classification systems, and the study of specific disease of the respiratory, skeletal, gastrointestinal, hepatobiliary, urinary, cardiovascular & hematopoietic, nervous, endocrine and reproductive systems with nuclear medicine imaging considerations.

Total Contact Hrs: 256.00

Clinical Hrs: 256.00

Fees: LABORATORY FEE \$50.00

Complete all the courses in the following option:

- Prerequisite: NMT1002L (minimum grade: C)

NMT1814 NUCLEAR MEDICINE CLINICAL EDUCATION II (2.00 Credits)

Second in a four-course sequence of supervised clinical instruction in nuclear medicine technology. In addition to topics covered in Clinical Education I, the student is expected to perform routine quality control and some imaging procedures. Students must successfully complete a required number of competencies as stated in the clinical syllabi for the respective semester.

Total Contact Hrs: 256.00

Clinical Hrs: 256.00

Fees: LABORATORY FEE \$50.00

Complete all the courses in the following option:

- Prerequisite: NMT1630 (minimum grade: C)

NMT1900 NUCLEAR MEDICINE IMAGING ANATOMY (2.00 Credits)

This course is designed to present anatomy and its importance to the Nuclear Medicine student who will be utilizing this knowledge in the clinical field for classification of diagnoses, procedures, and diagnostic services rendered to patients in the healthcare environment.

Total Contact Hrs: 32.00

Lecture Hrs: 32.00

Complete all the courses in the following option:

- Prerequisite: NMT1714 (minimum grade: C)

NMT2061 NUCLEAR MEDICINE SEMINAR (3.00 Credits)

This course challenges the student with comprehensive testing, discussions and refinement of their accumulated knowledge of all aspects of Nuclear Medicine technology in preparation for the National Board Examinations.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

NMT2102 NUCLEAR MEDICINE ADMINISTRATION (1.00 Credits)

The student will be introduced to the administrative duties required of a Nuclear Medicine Technologist. Upon completion, the student will attain knowledge of proper resume building skills, interviewing skills, stress management and overall successful in the healthcare field.

Total Contact Hrs: 16.00

Lecture Hrs: 16.00

Complete all the courses in the following option:

- Prerequisite: NMT2723 (minimum grade: C)

NMT2130 NUCLEAR MEDICINE RADIOPHARMACY (3.00 Credits)

This course will educate the student upon all aspects of all the radiopharmaceuticals used in Nuclear Medicine and PET. The student will understand how radiopharmaceuticals are produced, to maintain radiopharmaceutical records; obtain a generator eluate; prepare radiopharmaceuticals and perform quality control tests on them; dispose of radioactive waste appropriately; demonstrate an understanding of ordering pharmaceuticals in appropriate dosage and at an effective time frame. Prerequisite: instructor approval

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Prerequisite: NMT1630 (minimum grade: C)

NMT2534 NUCLEAR MEDICINE INSTRUMENTATION (3.00 Credits)

This class incorporates the principles of nuclear physics associated with the operation and calibration of radiation detection devices applied in nuclear medicine. Students will have a hands-on approach to the various types of devices and equipment that are commonly used in nuclear medicine. Students will be educated on quality control testing of imaging and non-imaging systems; which also include SPECT, PET, and CT applications.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2824 (minimum grade: C)

NMT2713 NUCLEAR MEDICINE METHODOLOGY I (3.00 Credits)

This is the first in a series of two courses which thoroughly educate the student about nuclear medicine imaging procedures to allow the student proper execution of these procedures during clinical rotation. The student will also demonstrate knowledge of respective PET imaging procedures frequently performed.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Option 1 - Pre or Corequisite: NMT2713L (minimum grade: C) and NMT2824 (minimum grade: C)

NMT2713L NUCLEAR MEDICINE METHODOLOGY I LAB (1.00 Credits)

This is the first in a series of two laboratories which allows the student to apply their knowledge of the material they learn in Methodology I and enhance the student's familiarity with the clinical setting.

Total Contact Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$22.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2713 (minimum grade: C)

NMT2723 NUCLEAR MEDICINE METHODOLOGY II (3.00 Credits)

This course enhances the student's knowledge attained from Methodology I by learning the remaining nuclear medicine procedures in order to properly execute all procedures successfully. The student will also demonstrate knowledge of any remaining PET imaging procedures not discussed in Methodology I.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Option 1 - Pre or Corequisite: NMT2723L (minimum grade: S) and NMT2834 (minimum grade: C)

NMT2723L NUCLEAR MEDICINE METHODOLOGY II LAB (1.00 Credits)

This is the second in a series of two laboratories which allows the student to apply their knowledge of the material they learn in Methodology II and enhance the student's familiarity within the clinical setting.

Total Contact Hrs: 32.00

Lab Hrs: 32.00

Fees: LABORATORY FEE \$22.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2723 (minimum grade: C)

NMT2779 INTRODUCTION TO MULTIPLE MODALITIES (3.00 Credits)

This course educates the student about proper recognition and interpretation of cross sectional anatomy. The student will also compare and analyze images from complementary modalities. It is crucial for the nuclear medicine technologist to understand three dimensional imaging in order to enhance patient care and be an asset to the facility.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2834 (minimum grade: C)

NMT2824 NUCLEAR MEDICINE CLINICAL EDUCATION III (3.00 Credits)

Third in a four-course sequence of supervised clinical instruction in nuclear medicine technology. In addition to topics covered in Clinical Education II, the student is expected to perform routine quality control and imaging procedures. Students must successfully complete a required number of competencies as stated in the clinical syllabi for the respective semester.

Total Contact Hrs: 384.00

Clinical Hrs: 384.00

Fees: LABORATORY FEE \$50.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2713 (minimum grade: C)

NMT2834 CLINICAL EDUCATION IV (3.00 Credits)

The fourth in a four-course sequence of supervised clinical instruction in nuclear medicine technology. In addition to topics covered in Clinical Education III, the student is expected to perform routine quality control, imaging and therapy procedures. Students must successfully complete a required number of competencies as stated in the clinical syllabi for the respective semester.

Total Contact Hrs: 384.00

Clinical Hrs: 384.00

Fees: LABORATORY FEE \$50.00

Complete all the courses in the following option:

- Pre or Corequisite: NMT2723 (minimum grade: C)

NMT2960 NUCLEAR MEDICINE ADVANCE APPLICATIONS (3.00 Credits)

This course allows the student to take a more in depth perception upon previous taught courses with emphasis upon clinical application and knowledge developed from prior clinical education classes.

Total Contact Hrs: 48.00

Lecture Hrs: 48.00

Complete all the courses in the following option:

- Prerequisite: NMT2713 (minimum grade: C)