



Course Description

NMT1002L | Introduction to Nuclear Medicine Laboratory | 2.00 credits

The student will learn the fundamentals of clinical nuclear medicine before going to the hospital and/or clinical site for actual patient interaction. The student will be introduced to radio-pharmacology, radiopharmaceutical chemistry, and characterization of radiopharmaceuticals, localization, and FDA approval process. Prerequisites: CHM1033, 1033L; Corequisites: NMT1312C, 1705C, 2613

Course Competencies:

Competency 1: The student will be able to demonstrate an understanding of patient care and safety by:

1. Describing the steps taken by the NM technologist to protect patients' belongings while she/he is in the Nuclear Medicine Department
2. Discussing the procedure to be followed when interviewing a patient for an NM procedure
3. Describing the proper method for assisting a patient with a bedpan or urinal
4. Describing the correct manner of moving or transferring patients to prevent injury to the patient or NM technologist
5. Describing the correct positioning of a patient to maintain good body alignment
6. Discussing the use of pillows or sponges to ensure patient comfort and stability during procedures in the Nuclear Medicine Department
7. Discussing the proper use of safety straps, side rails, and restraints in the NM Department.
8. Defining Body Mechanics
9. Stating three reasons for practicing proper body mechanics
10. Stating the leading cause of injury among health care workers
11. Listing three rules for proper body mechanics
12. Explaining the terms "Center of Gravity" and "Base of Support"

Competency 2: The student will demonstrate an understanding of compliance by:

1. Identifying appropriate techniques for applying principles of time, distance, and shielding for radiation safety practices
2. Naming and describing the various types of licenses for using radioactive materials in medical practice
3. Identifying Nuclear Regulatory Commission (NRC)/HRS regulations and placement on equipment and facilities
4. Identifying and examining the various accrediting bodies and their roles and goals in national patient safety

Competency 3: The student will be able to demonstrate an understanding of Nuclear Medicine Survey Meters by:

1. Describing the characteristics of an NMT Survey Meter
2. Discussing and demonstrating the appropriate use of an NMT Survey Meter
3. Performing quality control checks on the NMT Survey Meter

Competency 4: The student will be able to discuss the elements of the history, evolution, and structure of the Nuclear Medicine profession by:

1. Listing the prominent scientists and their contributions that led to the development of the Nuclear Medicine profession as it exists today
2. Discussing the concept of professionalism about:
 - a. Serving the needs of society
 - b. Understanding the characteristics of professionalism
 - c. Behaving in a professional manner
 - d. Enhancing and promoting the professional image

- e. Discussing the role of the Society of Nuclear Medicine and the importance of participation
- f. Discussing the importance of participation in the Florida Society of Nuclear Medicine (FSNMT)
- g. Discussing the roles of the American Registry of Radiologic Technologists (ARRT) and the Nuclear Medicine Technologist Certification Board (NMTCB) as they relate to the Nuclear Medicine profession and the requirements to have national certification
- h. Discussing the role of Florida's Department of Health as it relates to licensing of Nuclear Medicine Technologists
- i. Identifying indications for performing Diagnostic Nuclear Medicine, the routing of radiopharmaceuticals commonly used in Nuclear Medicine
- j. Identifying medical informatics used in Nuclear Medicine

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Create strategies that can be used to fulfill personal, civic, and social responsibilities
- Demonstrate knowledge of ethical thinking and its application to issues in society