



Course Number and Title: NMT 212 Scan Reading II with PET/CT

Campus Location:

Wilmington

Effective Date:

2018-51

Prerequisite:

NMT 211

Co-Requisites:

NMT 203, NMT 297

Course Credits and Hours:

1.00 credits

0.00 lecture hours/week

2.00 lab hours/week

Course Description:

This course is a continuation of Scan Reading I that covers the review and interpretation of nuclear medicine studies and how they contribute to patient diagnosis. Students also identify sectional anatomy seen in positron emission tomography (PET) and computed tomography (CT) imaging.

Required Text(s):

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

Additional Materials:

Nuclear Medicine Program Policy Manual Allied Health/Science Department Program Student Policy Manual

Schedule Type:

Classroom Course

Disclaimer:

None

Core Course Performance Objectives (CCPOs):

1. Evaluate, identify, and interpret all organ images. (CCC 6; PGC 1)
2. Assess, analyze, and choose the proper imaging protocols and computer analysis for each study. (PGC 1)
3. Explain the interpretive diagnosis for each study. (CCC 2; PGC 3)
4. Identify body planes and anatomical directions associated with sectional anatomy. (CCC 2; PGC 1)
5. Distinguish and discuss anatomy and pathology of the head, brain, neck, thorax, abdomen, pelvis, spine, and extremities visualized on multiple imaging modalities. (CCC 1, 6; PGC 1, 6)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

Measurable Performance Objectives (MPOs):

Upon completion of this course, the student will:

1. Evaluate, identify, and interpret all organ images.
 1. Describe the correct anatomical position used in the body's reference systems.
 2. Identify surface landmarks and references.
 3. Differentiate between transverse, sagittal, and coronal images.
 4. Explain the biodistribution of the radiopharmaceutical and its target organ.
2. Assess, analyze, and choose the imaging protocols and computer analysis for each study.
 1. Identify and apply the correct matrix sizes for all dynamic and static images.
 2. Explain preset time and preset count for each study.
 3. Analyze, determine, and select each computer analysis used for each procedure.
 4. Appraise the quality of images obtained or provided.
3. Explain the interpretive diagnosis for each study.
 1. Combine all basic anatomy and physiology in final diagnoses.
 2. Define terminology associated with specific pathologies and disease classifications and how they relate to the study.
 3. Discuss probable pathologies and their image quality.
 4. Compare CT anatomy with PET images.
4. Identify body planes and anatomical directions associated with sectional anatomy.
 1. Identify and describe the median, sagittal, coronal, and transverse body planes.
 2. Identify the following anatomical directions:
 1. Cranial/Superior
 2. Caudal/Inferior
 3. Anterior/Ventral
 4. Posterior/Dorsal
 5. Medial
 6. Lateral
 7. Proximal
 8. Distal
 3. Describe the Thoracic (Ventral), Abdominopelvic (Ventral), Cranial (Dorsal), Vertebral (Dorsal) cavities and determine what organs are located within them.
5. Distinguish and discuss anatomy and pathology of the head, brain, neck, thorax, abdomen, pelvis, spine, and extremities visualized on multiple imaging modalities.
 1. Analyze the anatomy and pathology of various imaging modalities, including but not limited to:
 1. Bones
 2. Gross and fine anatomy located in the head
 3. Muscles
 4. Organs
 5. Vascular structures
 6. Lymphatics

Evaluation Criteria/Policies:

Students must demonstrate proficiency on all CCPOs at a minimal 75 percent level to successfully complete the course. The grade will be determined using the Delaware Tech grading system:

92	-	100	=	A
83	-	91	=	B
75	-	82	=	C
0	-	74	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

Core Curriculum Competencies (CCCs are the competencies every graduate will develop):

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):

1. Integrate principles of theoretical knowledge and demonstrate entry-level skills pertaining to nuclear medicine in-vivo and in-vitro procedures, radiation safety, quality control, quality assurance, NRC regulations, patient care, radiopharmaceutical preparation and administration, instrumentation and medical informatics.
2. Perform all entry-level procedural computer analysis.
3. Exhibit critical thinking and problem solving skills during the practice of nuclear medicine.
4. Abide by the profession's code of ethics as stated in the American Registry of Radiologic Technologists (ARRT) and Nuclear Medicine Technology Certification Boards (NMTCB).
5. Competently perform all in-vivo and in-vitro procedures.
6. Exhibit verbal, nonverbal, and written communication skills during patient care, research, and professional scope of practice.

Disabilities Support Statement:

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.