



BROWARD COMMUNITY COLLEGE COURSE OUTLINE

LAST REVIEW:
2008-2009

NEXT REVIEW:
2013-2014

STATUS:
A

COURSE TITLE: Nuclear Medicine Laboratory 1

COMMON COURSE NUMBER: NMT 2705L

CREDIT HOURS: 1.0

CONTACT HOUR BREAKDOWN
(per 16 week term)

CLOCK HOURS:
(Voc. Course ONLY)

Lecture: Lab: 32
Clinic: 2 Other:

PREREQUISITE(S): Program Admission

COREQUISITE(S): NMT2130, NMT2485, NMT2834

PRE/COREQUISITE(S):

COURSE DESCRIPTION:

Practical hands on approach to Nuclear Medicine Methodology and Nuclear Medicine Instrumentation. Student will utilize the instrumentation involved in delivering nuclear medicine service to the patient.

General Education Requirements – Associate of Arts Degree (AA), meets Area(s): Area
General Education Requirements – Associate in Science Degree (AS), meets Area(s): Area
General Education Requirements – Associate in Applied Science Degree (AAS), meets Area(s): Area

UNIT TITLES

1. Communicating with the Patient
2. Proper Body Mechanics
3. Review of Universal Precautions
4. Routine and Tri-Phase /Bone Imaging
5. Routine Brain and Cerebral Vascular Flow Imaging
6. Renal Flow and Renogram Imaging
7. Thyroid and Gastrointestinal Bleeding Imaging
8. Hepatobiliary and Liver/Spleen Imaging
9. Gallium Imaging
10. Lung (Aerosol, Ventilation, and Perfusion) Imaging



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ASSESSMENT:

Please provide a brief description (250 characters maximum) that details how students will be assessed on the course outcomes.

Upon successful completion of this course, the students should be able to demonstrate an understanding of patient communication.

**** Complete the following only if course is seeking general education status ****

GENERAL EDUCATION Competencies and Skills *:

Please highlight in green font all Competencies/Skills from the list below that apply to this course. In the box to the right of the Competency/Skill, enter all specific learning outcome numbers (i.e. 1.1, 2.7, 5.12) that apply.

1. Read with critical comprehension	
2. Speak and listen effectively	
3. Speak and listen effectively	
4. Think creatively, logically, critically, and reflectively (analyze, synthesize, apply, and evaluate)	
5. Demonstrate and apply literacy in its various forms: (highlight in green ALL that apply) (1. technological, 2. informational, 3. mathematical, 4. scientific, 5. cultural, 6. historical, 7. aesthetic and/or 8. environmental)	
6. Apply problem solving techniques to real-world experiences	
7. Apply methods of scientific inquiry	
8. Demonstrate an understanding of the physical and biological environment and how it is impacted by human beings	
9. Demonstrate an understanding of and appreciation for human diversities and commonalities	
10. Collaborate with others to achieve common goals.	
11. Research, synthesize and produce original work	
12. Practice ethical behavior	
13. Demonstrate self-direction and self motivation	
14. Assume responsibility for and understand the impact of personal behaviors on self and society	
15. Contribute to the welfare of the community	



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* *General Education Competencies and Skills endorsed by '05-'06 General Education Task Force*



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Common Course Number: NMT 2705L

Unit 1 Communicating with the Patient

General Outcome

1.0 The student shall be able to demonstrate an understanding of patient Communication.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1 Describe the importance of positive responses to the patient and personal recognition of the patient
- 1.2 Answer common patient questions in a manner understandable to the patient
- 1.3 Demonstrate proper nonverbal language in patient care situations
- 1.4 Communicate with children, the seriously ill and disable in ways appropriate to those special patient groups



Unit 2 Proper Body Mechanics

General Outcome:

2.0 The student shall able to demonstrate an understanding of body mechanics.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1** Demonstrate proper handling and discuss special restrictions when:
 - a. raising a patient to a sitting position
 - b. turning a bedridden patient
 - c. transferring a patient to and from a wheelchair, bed and stretcher

- 2.2** Demonstrate proper patient handling and discuss special restrictions when:
 - a. patient is in traction or has a cast
 - b. patient has a catheter, IV, or drainage bag in place
 - c. patient is receiving oxygen therapy
 - d. patient is on a respirator
 - e. patient has been restrained

- 2.3** Discuss the concepts of sepsis and asepsis

- 2.4** Describe the responsibilities of disease and infection control programs, including prevention transmission and decontamination on communicable disease

- 2.5** Outline the procedure for cleaning the imaging area after a patient with a communicable disease has been imaged



Unit 3 Review of Universal Precautions

General Outcome:

- 3.0 The student shall be able to demonstrate an understanding of universal precaution.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 3.1** Identify the most common reasons for ordering each study (pathology for which nuclear procedures are of diagnostic value)
- 3.2** Name clinical findings that are consistent with the suspected pathology
- 3.3** Describe the historical and current radio-pharmaceutical used for each study, including:
- a. identify
 - b. physical data
 - c. chemical form
 - d. Dose
 - e. mechanism of localization
 - f. bodily distribution
 - g. whole body dose and target organ
- 3.4** Discuss any procedures and/or substances that may interfere with performance of a valid test
- 3.5** Discuss any contraindications or adverse reactions associated with the study
- 3.6** Describe any associated patient preparation, including pre-medications, dietary requirements or restrictions, and/or physical limitations or exertion
- 3.7** List and/or describe equipment required for valid performance of the study, including camera and ancillary equipment



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Unit 4 Routine and Tri-phase Bone Imaging

General Outcome:

- 4.0 The student shall be able to demonstrate an understanding of bone imaging.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 4.1 Routine and Tri-phase Bone Imaging**

Unit 5 Routine Brain and Cerebral Vascular Flow Imaging

General Outcome:

- 5.0 The student shall be able to demonstrate an understanding of routine brain studies.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 5.1 Routine Brain and Cerebral Vascular Flow**



Unit 6 Routine Brain and Cerebral Vascular Flow

General Outcome:

- 6.0 The student shall be able to demonstrate an understanding of renal flow imaging.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 6.1 Renal Flow and Renogram Imaging**

Unit 7 Thyroid and Gastrointestinal Bleeding Imaging

General Outcome:

- 7.0 The student shall be able to demonstrate an understanding of GI Bleeding studies.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 7.1 Thyroid and Gastrointestinal Bleeding Imaging**



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Unit 8 Hepatobiliary and Liver/Spleen Imaging

General Outcome:

- 8.0 The student shall be able to demonstrate an understanding of liver and spleen imaging.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 8.1 Hepatobiliary and Liver/Spleen Imaging**

Unit 9 Gallium Imaging

General Outcome:

- 9.0 The student shall be able to demonstrate an understanding of gallium imaging.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 9.1 Gallium Imaging**

Unit 10 Lung (Aerosol, Ventilation, and Perfusion) Imaging

General Outcome:

- 10.0 The student shall be able to demonstrate an understanding of lung imaging.**

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 10.1 Lung (Aerosol, Ventilation, and Perfusion) Imaging**



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