

LAST REVIEW: 2010-2011

NEXT REVIEW: 2015-2016

STATUS: A

COURSE TITLE: Nuclear Medicine Seminar

COMMON COURSE NUMBER: NMT 2061

CREDIT HOURS: 3

CONTACT HOUR BREAKDOWN

CLOCK HOURS:

Lecture: 48

Labs:

Clinic:

Other:

PREREQUISITE(S): NMT2723, NMT2723L NMT2534, NMT2102, NMT2960

COREQUISITE(S): NMT2844

COURSE DESCRIPTION:

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.

UNIT TITLES

- 1.0 Patient Care
- 2.0 Radiation Protection and Radiobiology
- 3.0 Radiopharmacy
- 4.0 Imaging Procedures
- 5.0 Cross Sectional Anatomy
- 6.0 Nuclear Physics and Mathematics
- 7.0 Instrumentation

ASSESSMENT:

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

1. **Announced and unannounced quizzes and Unit examinations:**
2. **Midterm and/or Final Exam (cumulative/comprehensive);**
3. **Assessment of reading and online assignments via submission of homework projects;**
4. **Participation in Discussion Forums on the e-learning site**
5. **Completion of group and individual projects as assigned**

Common Course Number: NMT 2061**Unit 1 Patient Care*****General Outcome:***

1.0 The student shall be able to accurately describe all aspects of patient care.

Specific Learning Outcomes

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

Successfully complete review exams on nuclear physics and mathematics.

1.1 Successfully complete review exams in all areas of patient care.

1.2 Identify individual areas of weakness in regards to patient care.

1.3 Review patient care outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 2 Radiation Protection and Radiobiology*****General Outcome:***

2.0 The student shall be able to accurately describe all aspects of radiation protection and radiobiology.

Specific Learning Outcomes

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

- 2.1 Successfully complete review exams in all areas of radiation protection and radiobiology.
- 2.2 Identify individual areas of weakness in regards to radiation protection and radiobiology.
- 2.3 Review radiation protection and radiobiology outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 3 Radiopharmacy*****General Outcome:***

3.0 The student shall be able to accurately describe all aspects of radiopharmacy.

Specific Learning Outcomes

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

- 3.1 Successfully complete review exams in all areas of radiopharmacy.
- 3.2 Identify individual areas of weakness in regards to radiopharmacy.
- 3.3 Review radiopharmacy outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 4 Imaging Procedures*****General Outcome:***

4.0 The student shall be able to accurately describe all aspects of all imaging procedures.

Specific Learning Outcomes

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

- 4.1 Recall the following imaging procedures with clinical application:
 - a. Skeletal System
 - b. Central Nervous System
 - c. Genitourinary System
 - d. Tumor and Infection
 - e. Pulmonary System
 - f. Gastrointestinal System
 - g. Cardiac
 - h. Lymphoscintigraphy
 - i. Endocrine System
 - j. Therapy Procedures
 - k. Infrequent Procedures
 - l. Common PET imaging procedures

- 4.2 Successfully complete review exams of all imaging procedures.

- 4.3 Identify individual areas of weakness in regards to all imaging procedures.

- 4.4 Review all imaging procedure outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 5 Cross Sectional Anatomy*****General Outcome:***

5.0 The student shall be able to accurately describe all aspects of cross sectional anatomy.

Specific Learning Outcomes

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

- 5.1 Successfully complete review exams of cross sectional anatomy.
- 5.2 Identify individual areas of weakness in regards to cross sectional anatomy.
- 5.3 Review specific cross sectional anatomy outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 6 Nuclear Physics and Mathematics*****General Outcome:***

- 6.0 The student shall be able to accurately describe all aspects of nuclear physics and mathematics.

Specific Learning Outcomes

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

- 6.1 Successfully complete review exams on nuclear physics and mathematics.
- 6.2 Identify individual areas of weakness in regards to nuclear physics and mathematics.
- 6.3 Review nuclear physics and mathematics outcomes to build upon specific weaknesses.

Common Course Number: NMT 2061**Unit 7 Instrumentation*****General Outcome:***

7.0 The student shall be able to accurately describe all aspects of instrumentation.

Specific Learning Outcomes

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

- 7.1 Recall all aspects of instrumentation including:
- a. Nuclear Medicine equipment
 - b. Nuclear Medicine cameras
 - c. SPECT cameras
 - d. PET cameras
 - e. CT cameras
- 7.2 Successfully complete review exams on instrumentation.
- 7.3 Identify individual areas of weakness in regards to instrumentation.
- 7.4 Review instrumentation outcomes to build upon specific weaknesses.