# RADT M44B: NUCLEAR MEDICINE CLINICAL LAB IIB

**Originator**
rdarwin

**College**
Moorpark College

**Discipline (CB01A)**
RADT - Radiologic Technology

**Course Number (CB01B)**
M44B

**Course Title (CB02)**
Nuclear Medicine Clinical Lab IIB

**Banner/Short Title**
Nuclear Med. Clinical Lab IIB

**Credit Type**
Credit

**Start Term**
Spring 2024

**Formerly**
RADT M44 - Nuclear Med Clinical Lab II

**Catalog Course Description**
Provides an opportunity for intermediate practical application of nuclear medicine exams of the respiratory, genitourinary, and hematopoietic systems. Includes inflammatory/tumor, and pediatric procedures of the same areas. Utilizes lab in the Nuclear Medicine department of a pre-assigned clinical affiliate.

**Taxonomy of Programs (TOP) Code (CB03)**
1225.00 - *Radiologic Technology

**Course Credit Status (CB04)**
D (Credit - Degree Applicable)

**Course Transfer Status (CB05) (select one only)**
B (Transferable to CSU only)

**Course Basic Skills Status (CB08)**
N - The Course is Not a Basic Skills Course

**SAM Priority Code (CB09)**
B - Advanced Occupational

**Course Cooperative Work Experience Education Status (CB10)**
N - Is Not Part of a Cooperative Work Experience Education Program

**Course Classification Status (CB11)**
Y - Credit Course

**Educational Assistance Class Instruction (Approved Special Class) (CB13)**
N - The Course is Not an Approved Special Class

**Course Prior to Transfer Level (CB21)**
Y - Not Applicable

**Course Noncredit Category (CB22)**
Y - Credit Course

**Funding Agency Category (CB23)**
Y - Not Applicable (Funding Not Used)

**Course Program Status (CB24)**
1 - Program Applicable

**General Education Status (CB25)**
Y - Not Applicable

**Support Course Status (CB26)**
N - Course is not a support course

**Field trips**
Will not be required

**Grading method**
(L) Letter Graded

**Does this course require an instructional materials fee?**
No

**Repeatable for Credit**
No

**Is this course part of a family?**
No

## Units and Hours

**Carnegie Unit Override**
No

## In-Class

**Lecture**

**Activity**

**Laboratory**
**Minimum Contact/In-Class Laboratory Hours**
236.25
**Maximum Contact/In-Class Laboratory Hours**
236.25

## Total in-Class

**Total in-Class**
**Total Minimum Contact/In-Class Hours**
236.25
**Total Maximum Contact/In-Class Hours**
236.25

## Outside-of-Class

**Internship/Cooperative Work Experience**

**Paid**

**Unpaid**

## Total Outside-of-Class

**Total Outside-of-Class**

## Total Student Learning

**Total Student Learning**
**Total Minimum Student Learning Hours**
236.25
**Total Maximum Student Learning Hours**
236.25

**Minimum Units (CB07)**
4.5
**Maximum Units (CB06)**
4.5

**Prerequisites**
RADT M34B

**Limitations on Enrollment**
Criminal background clearance
Current CPR certification for health care provider (American Heart Association) or professional rescuer (American Red Cross)
Current negative TB test or chest x-ray
Drug and alcohol clearance
No acrylic or long nails in clinical settings
No visible tattoos or visible body piercings except single studs in earlobes
Others (specify)

**Other Limitations on Enrollment**
Admission to the Moorpark College Nuclear Medicine Program
Current American Registry of Radiologic Technologists (ARRT) license
BLS CPR card from American Heart Association only
Los Angeles City Hospital Fire and Life Safety Card
Proof of Health Insurance
Proof of Professional Liability Insurance

## Entrance Skills

**Entrance Skills**
RADT M34B

**Prerequisite Course Objectives**
RADT M34B-consistently demonstrate the appropriate method for lifting, moving, and transporting patients to and from the nuclear medicine department: A. bed to gurney and back B. gurney to table and back C. bed to wheelchair and back D. wheelchair to table and back.
RADT M34B-practice, through demonstration, acceptable radiation protection methods according to the California Radiation Health Code when scanning the skeletal, cardiovascular, central nervous, digestive and endocrine/exocrine systems for adult as well as pediatric patients.
RADT M34B-observe, assist, perform and evaluate nuclear medicine scans of the bone, cardiovascular, central nervous, digestive and endocrine/exocrine systems for adult as well as pediatric patients.
RADT M34B-evaluate and revise the quality and accuracy of each scan as related to the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems.

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## Requisite Justification

**Requisite Type**
Prerequisite

**Requisite**
RADT M34B

**Requisite Description**
Course in a sequence

**Level of Scrutiny/Justification**
Required by statute or regulation

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**Requisite Type**
Enrollment Limitation

**Requisite**
Admission to the Moorpark College Nuclear Medicine Program
Current American Registry of Radiologic Technologists (ARRT) license
Criminal background clearance
Drug and alcohol clearance
No acrylic or long nails in clinical settings
Current negative TB test or chest x-ray
No visible tattoos or visible body piercings except single studs in earlobes
BLS CPR card from American Heart Association only
Los Angeles City Hospital Fire and Life Safety Card
Proof of Health Insurance
Proof of Professional Liability Insurance

**Requisite Description**
Credit program requisite (credit only)

**Level of Scrutiny/Justification**
Required by statute or regulation

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**Student Learning Outcomes (CSLOs)**

| | Upon satisfactory completion of the course, students will be able to: |
|---|---|
| 1 | complete at least 5 clinical competencies by end of this course |
| 2 | complete competency evaluation with at least 90% accuracy |

**Course Objectives**

| | Upon satisfactory completion of the course, students will be able to: |
|---|---|
| 1 | perform all the assigned clinical lab procedures utilizing an actual patient and the clinical affiliate's routine for each procedure of the respiratory, genitourinary, and hematopoietic systems, and inflammatory/tumor pathology. |
| 2 | evaluate the quality and accuracy of each scan of the respiratory, genitourinary, and hematopoietic systems, and inflammatory/tumor pathology. |
| 3 | practice, through demonstration, acceptable radiation protection methods according to the California Radiation Health Code when performing procedures of the respiratory, genitourinary, and hematopoietic systems, and inflammatory/tumor pathology. |
| 4 | observe, assist and perform nuclear medicine scans of the respiratory, genitourinary, hematopoietic, inflammatory systems for adult as well as pediatric patients. |
| 5 | identify the proper functional nuclear medicine unit to demonstrate the appropriate criteria for each examination. |

## Course Content

**Lecture/Course Content**
None

**Laboratory or Activity Content**
20% Intermediate respiratory system nuclear medicine procedures

20% Intermediate pediatric nuclear medicine procedures
20% Intermediate inflammatory/tumor nuclear medicine procedures including therapeutic procedures
20% Intermediate hematopoietic system nuclear medicine procedures
20% Intermediate genitourinary system nuclear medicine procedures

## Methods of Evaluation

**Which of these methods will students use to demonstrate proficiency in the subject matter of this course? (Check all that apply):**
Skills demonstrations

**Methods of Evaluation may include, but are not limited to, the following typical classroom assessment techniques/required assignments (check as many as are deemed appropriate):**
Clinical demonstration
Oral analysis/critiques
Performances
Skills demonstrations
Participation

## Instructional Methodology

**Specify the methods of instruction that may be employed in this course**
Clinical demonstrations
Field experience/internship
Instructor-guided interpretation and analysis
Instructor-guided use of technology
Problem-solving examples

**Describe specific examples of the methods the instructor will use:**
Clinical coordinator will follow up with the clinical preceptor or the nuclear medicine technologist on a consistent basis to make sure that the students are exposed to and perform the American Registry of Radiologic Technologists (ARRT) exam competencies required.

## Representative Course Assignments

**Writing Assignments**
Complete paperwork needed to process each nuclear medicine exam.
Document all nuclear medicine procedures and observations in the clinical portfolio.
Write assignments in lab manuals.

**Critical Thinking Assignments**
Evaluate the patient's condition (pathology, injury, age, physically/mentally challenged) to determine the proper method of completing a nuclear medicine scan.
Analyze a completed scan for diagnostic quality.
Select the correct instruments and radioisotopes depending on patient size, weight, age, physical condition and pathology.

**Reading Assignments**
Read California Department of Health Radiologic Health Branch Title-17 code of regulations for radiation safety.
Read a peer reviewed article on from journal of the American Society of Radiologic Technologists (ASRT).

**Skills Demonstrations**
Complete competencies in nuclear medicine imaging, such as those pertaining to the respiratory system.
Perform quality control procedures on nuclear medicine equipment.

## Outside Assignments

**Representative Outside Assignments**
Review nuclear medicine textbook for exam protocols on respiratory, genitourinary, hematopoietic system, inflammatory/tumor, and pediatric procedures.
Review nuclear medicine hospital procedure protocols before start on clinical rotation.

Complete weekly patient logs.

## District General Education

## A. Natural Sciences

## B. Social and Behavioral Sciences

## C. Humanities

## D. Language and Rationality

## E. Health and Physical Education/Kinesiology

## F. Ethnic Studies/Gender Studies

**Course is CSU transferable**
Yes

**CSU Baccalaureate List effective term:**
F2022

## CSU GE-Breadth

## Area A: English Language Communication and Critical Thinking

## Area B: Scientific Inquiry and Quantitative Reasoning

## Area C: Arts and Humanities

## Area D: Social Sciences

## Area E: Lifelong Learning and Self-Development

## Area F: Ethnic Studies

## CSU Graduation Requirement in U.S. History, Constitution and American Ideals:

## IGETC

## Area 1: English Communication

## Area 2A: Mathematical Concepts & Quantitative Reasoning

## Area 3: Arts and Humanities

## Area 4: Social and Behavioral Sciences

## Area 5: Physical and Biological Sciences

## Area 6: Languages Other than English (LOTE)

## Textbooks and Lab Manuals

**Resource Type**
Textbook

**Classic Textbook**
Yes

**Description**
Shackett, Pete. *Nuclear Medicine Technology: Procedures and Quick Reference.* 3rd ed., Lippincott, Williams and Wilkins, 2019.

**Resource Type**
Textbook

**Description**
Gilmore, David, and Kristen Waterstram-Rich. *Nuclear Medicine and PET/CT: Technology and Techniques.* 8th ed., Mosby, 2016.

## Library Resources

**Assignments requiring library resources**
Nuclear medicine journal reading assignments using the Library's print and online resources and Course Reserve materials.

**Sufficient Library Resources exist**
Yes

**Example of Assignments Requiring Library Resources**
Research professional journals for articles on nuclear medicine procedures.
Online research using the Library's health sciences databases on respiratory, genitourinary, and hematopoietic systems for case study examinations.

**Primary Minimum Qualification**
RADIOLOGIC TECHNOLOGY

## Review and Approval Dates

**Department Chair**
06/03/2021

**Dean**
09/14/2021

**Technical Review**
10/07/2021

**Curriculum Committee**
10/19/2021

**DTRW-I**
MM/DD/YYYY

**Curriculum Committee**
MM/DD/YYYY

**Board**
MM/DD/YYYY

**CCCCO**
MM/DD/YYYY

**Control Number**
CCC000528949

**DOE/accreditation approval date**
MM/DD/YYYY