RADT M52B: NUCLEAR MEDICINE CLINICAL LAB IIIB

Originator
rdarwin

College
Moorpark College

Discipline (CB01A)
RADT - Radiologic Technology

Course Number (CB01B)
M52B

Course Title (CB02)
Nuclear Medicine Clinical Lab IIIB

Banner/Short Title
Nuclear Med Clinical Lab IIIB

Credit Type
Credit

Start Term
Summer 2024

Formerly
RADT M52 - Nuclear Med Clinical Lab III

Catalog Course Description
Continues the advanced practical application of nuclear medicine procedures of the skeletal, respiratory, cardiovascular, gastrointestinal, central nervous, endocrine, genitourinary, hematopoietic systems. Includes advanced practice of inflammatory/ tumor procedures for adult and pediatric patients. 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
131.25
Maximum Contact/In-Class Laboratory Hours
131.25

Total in-Class

Total in-Class
Total Minimum Contact/In-Class Hours
131.25
Total Maximum Contact/In-Class Hours
131.25

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
131.25
Total Maximum Student Learning Hours
131.25

Minimum Units (CB07)
2.5
Maximum Units (CB06)
2.5

Prerequisites
RADT M52A

Corequisites
RADT M50

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 M52A

Prerequisite Course Objectives
RADT M52A-perform all the assigned advanced clinical lab procedures utilizing an actual patient and the clinical affiliate's routine for each procedure of the skeletal, cardiovascular, central nervous, digestion, endocrine, respiratory, genitourinary, hematopoietic and inflammatory systems.
RADT M52A-evaluate the quality and accuracy of each completed scan.
RADT M52A-practice, through demonstration, acceptable radiation protection methods according to the California Radiation Health Code when performing all scans.
RADT M52A-observe, assist and perform advanced nuclear medicine scans of the skeletal, cardiovascular, central nervous, digestive, endocrine, respiratory, genitourinary, hematopoietic, and inflammatory systems in adult as well as pediatric patients.
RADT M52A-give the proper functional nuclear medicine unit to demonstrate the appropriate criteria for each examination.

Requisite Justification

Requisite Type
Corequisite

Requisite
RADT M50

Requisite Description
Course in a sequence

Level of Scrutiny/Justification
Required by statute or regulation

Requisite Type
Prerequisite

Requisite
RADT M52A

Requisite Description
Course in a sequence

Level of Scrutiny/Justification
Required by statute or regulation

Requisite Type
Enrollment Limitation

Requisite
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

Requisite Description
Credit program requisite (credit only)

Level of Scrutiny/Justification
Required by statute or regulation

Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	complete at least 3 clinical competencies by the 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 advanced clinical lab procedures utilizing an actual patient and the clinical affiliate's routine for each procedure of the respiratory, genitourinary, hematopoietic and inflammatory systems.
2	evaluate the quality and accuracy of each completed scan.
3	practice, through demonstration, acceptable radiation protection methods according to the California Radiation Health Code when performing all scans.

4	observe, assist and perform advanced nuclear medicine scans of the respiratory, genitourinary, hematopoietic, and inflammatory systems in 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% Advanced respiratory system nuclear medicine procedures
20% Advanced pediatric nuclear medicine procedures
20% Advanced inflammatory/tumor nuclear medicine procedures including therapeutic
20% Advanced hematopoietic system nuclear medicine procedures
20% Advanced 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
Skills demonstrations
Projects
Participation

Instructional Methodology

Specify the methods of instruction that may be employed in this course

Clinical demonstrations
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.
Complete written assignments in lab manuals.

Critical Thinking Assignments

Evaluate the patient's condition (pathology, injury, age, physically/mentally challenged) to determine proper method of completing a nuclear medicine scan.
Analyze the completed scan for diagnostic quality, such as a nuclear heart scan.
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.
Perform quality control procedures on nuclear medicine equipment used for nuclear heart scans.

Outside Assignments

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

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

Classic Textbook
Yes

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 skeletal, respiratory, cardiovascular, digestive, central nervous, endocrine/exocrine, genitourinary, or hematopoietic systems for case study examinations.

Primary Minimum Qualification
RADIOLOGIC TECHNOLOGY

Review and Approval Dates

Department Chair
06/04/2021

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
CCC000528989

DOE/accreditation approval date
MM/DD/YYYY