RADT M34B: NUCLEAR MEDICINE CLINICAL LAB IB

Originator
rdarwin

College
Moorpark College

Discipline (CB01A)
RADT - Radiologic Technology

Course Number (CB01B)
M34B

Course Title (CB02)
Nuclear Medicine Clinical Lab IB

Banner/Short Title
Nuclear Med Clinical Lab IB

Credit Type
Credit

Start Term
Fall 2023

Catalog Course Description
Provides an opportunity for intermediate practice of nuclear medicine procedures. Focuses on the imaging of the bone, cardiovascular, central nervous, digestive and endocrine/exocrine systems procedures. 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)
C - Clearly 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 M52A

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-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.

Requisite Justification

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 Heath Insurance
Proof of Professional Liability Insurance

Requisite Description
Credit program requisite (credit only)

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

Student Learning Outcomes (CSLOs)

	Upon satisfactory completion of the course, students will be able to:
1	demonstrate technical skills with at least 95% accuracy.
2	complete at least 4 clinical competencies by the end of this course.

Course Objectives

	Upon satisfactory completion of the course, students will be able to:
1	demonstrate consistently 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.
2	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.
3	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.
4	evaluate and revise the quality and accuracy of each scan as related to the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems.
5	perform and evaluate all the assigned nuclear medicine clinical lab procedures for skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems, utilizing an actual patient and the clinical affiliate's routine for each procedure.

Course Content

Lecture/Course Content
None

Laboratory or Activity Content
20% Intermediate nuclear medicine procedures of the skeletal system
20% Intermediate nuclear medicine procedures of the endocrine/exocrine systems
20% Intermediate nuclear medicine procedures of the digestive system

20% Intermediate nuclear medicine procedures of the central nervous system
20% Intermediate nuclear medicine procedures of the cardiovascular system

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
Projects
Participation
Reports/Papers/Journals

Instructional Methodology

Specify the methods of instruction that may be employed in this course
Clinical demonstrations
Field experience/non-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
Written paperwork needed to process each nuclear medicine exam.
Documentation of all nuclear medicine procedures and observations in the clinical portfolio, including procedures on the musculoskeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems.
Written assignments in lab manuals.

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

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 pertaining to the musculoskeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems.
Perform quality control procedures on nuclear medicine equipment, including equipment used for digestive system procedures.

Outside Assignments

Representative Outside Assignments
Review nuclear medicine procedures before start of 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:
F2023

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 bone, cardiovascular, central nervous, digestive, and endocrine/exocrine systems for case study examinations.

Primary Minimum Qualification
RADIOLOGIC TECHNOLOGY

Review and Approval Dates

Department Chair
05/27/2021

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
CCC000567165

DOE/accreditation approval date
MM/DD/YYYY