

RADT M34A: NUCLEAR MEDICINE CLINICAL LAB IA

Originator

rdarwin

College

Moorpark College

Discipline (CB01A)

RADT - Radiologic Technology

Course Number (CB01B)

M34A

Course Title (CB02)

Nuclear Medicine Clinical Lab IA

Banner/Short Title

Nuclear Medicine Clinic Lab IA

Credit Type

Credit

Start Term

Fall 2022

Catalog Course Description

Provides an opportunity for practical application at a designated clinical site. Focuses on nuclear medicine imaging of the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems. Utilizes the lab in the nuclear medicine department of a pre-assigned clinical affiliate.

OTHER: Materials Fee: There is a materials fee for the course. The fee varies based on market value.

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?

Yes

Fee Amount

89.44

What personal property or material does the student need that the fee pays for?

Radiation monitor (Thermoluminescence device [TLD])

Identify a specific course objective that cannot be met but for the use of the materials at issue.

-perform all the assigned nuclear medicine clinical lab procedures for the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems, utilizing an actual patient and the clinical affiliate's routine for each procedure.
-observe, assist and perform nuclear medicine scans of the bone, cardiovascular, central nervous, digestive and endocrine/exocrine systems for adult as well as pediatric patients.

Is the amount of materials the students must supply, or the amount that they receive in exchange for the fee that is charged, consistent with the amount of material necessary to meet the required objectives of the course?

Yes

If students pay a fee rather than furnishing their own materials, why do they have to pay a fee rather than supply the materials themselves? Is the district/college the only source of the materials? If not, is there a health or safety reason for the district/college to supply the materials? If not, will the district/college supply the materials more cheaply than they can be obtained elsewhere, AND at the district's/college's actual cost?

Students are unable to purchase the radiation monitoring device individually. The college must also review and store all radiation monitoring reports from these devices for all students in the program, forever.

Specify the month and year in which the fee amount, or list of material provided, was reviewed by the host department to ensure that the preceding standards continue to be met.

January 2021

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

Corequisites

RADT M30 and RADT M32

Advisories on Recommended Preparation

MATH M15 or MATH M15H and CHEM M12

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

Requisite Justification

Requisite Type

Corequisite

Requisite

RADT M30

Requisite Description

Corequisite

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Corequisite

Requisite

RADT M32

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 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

Requisite Type

Recommended Preparation

Requisite

MATH M15 or MATH M15H and CHEM M12

Requisite Description

Course not in a sequence

Level of Scrutiny/Justification

Content review

Student Learning Outcomes (CSLOs)

Upon satisfactory completion of the course, students will be able to:

- | | |
|---|--|
| 1 | complete at least 5 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 | evaluate the quality and accuracy of each scan as related to the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems. |
| 2 | perform all the assigned nuclear medicine clinical lab procedures for the skeletal, cardiovascular, central nervous, digestive, and endocrine/exocrine systems, utilizing an actual patient and the clinical affiliate's routine for each procedure. |
| 3 | 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. |
| 4 | practice, through demonstration, appropriate radiation protection methods according to the California Radiation Health Code when examining the skeletal, cardiovascular, central nervous, digestive and endocrine/exocrine systems for adult as well as pediatric patients. |
| 5 | observe, assist and perform nuclear medicine scans of the bone, cardiovascular, central nervous, digestive and endocrine/exocrine systems for adult as well as pediatric patients. |
| 6 | 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% Nuclear medicine procedures of the cardiovascular system
- 20% Nuclear medicine procedures of the endocrine/exocrine system
- 20% Nuclear medicine procedures of the digestive system
- 20% Nuclear medicine procedures of the central nervous system
- 20% Nuclear medicine procedures of the skeletal 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
- 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

Written paperwork needed to process each nuclear medicine exam.
Documentation of all nuclear medicine procedures and observations in the clinical portfolio.
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 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.
Perform quality control procedures on nuclear medicine equipment.

Outside Assignments

Representative Outside Assignments

Review nuclear medicine textbook for exam protocols.
Review nuclear medicine hospital procedure protocols 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****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

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

Textbook

Classic Textbook

Yes

Description

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

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

CCC000567166

DOE/accreditation approval date

MM/DD/YYYY