

RADT M02AL: RADIOGRAPHIC CLINICAL LAB II

Originator
atorabyan

College

Moorpark College

Discipline (CB01A)

RADT - Radiologic Technology

Course Number (CB01B)

M02AL

Course Title (CB02)

Radiographic Clinical Lab II

Banner/Short Title

Radiographic Clinical Lab II

Credit Type

Credit

Start Term

Spring 2021

Catalog Course Description

Provides an opportunity for practical application of theory on patients in a clinical setting. Includes proper positioning and exposure of the skull, paranasal sinuses, facial bones; fluoroscopic and contrast media procedures of the gastrointestinal and genitourinary systems; and pediatric and surgical radiography. Takes place in the radiology 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

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

Yes

In-Class

Lecture

Activity

Laboratory

Minimum Contact/In-Class Laboratory Hours

245.00

Maximum Contact/In-Class Laboratory Hours

245.00

Total in-Class

Total in-Class

Total Minimum Contact/In-Class Hours

245.00

Total Maximum Contact/In-Class Hours

245.00

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

245.00

Total Maximum Student Learning Hours

245.00

Minimum Units (CB07)

4.5

Maximum Units (CB06)

4.5

Prerequisites

RADT M01A, RADT M01AL and RADT M11

Corequisites

RADT M02A and RADT M12 and RADT M02B and RADT M02BL

Limitations on Enrollment

Criminal background clearance

Current CPR certification for health care provider (American Heart Association) or professional rescuer (American Red Cross)

Drug and alcohol clearance

Proof of freedom from and immunity to communicable diseases

No acrylic or long nails in clinical settings

Current negative TB test or chest x-ray

Others (specify)

Physical examination demonstrating general good health

No visible tattoos or visible body piercings except single studs in earlobes

Other Limitations on Enrollment

Admission to the Radiologic Technology Program.

CPR BLS Provider 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 M01AL

Prerequisite Course Objectives

RADT M01AL-execute medical imaging procedures under the appropriate level of supervision.

RADT M01AL-assess the patient and complete appropriate documentation in Radiologic Information System (RIS)

RADT M01AL-select technical factors to produce quality diagnostic images with the lowest radiation exposure possible.

RADT M01AL-integrate the use of appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting.

RADT M01AL-maintain patient confidentiality standards and meet HIPAA (Health Insurance Portability and Accountability Act of 1996) requirements.

RADT M01AL-provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture.

RADT M01AL-adapt procedures to meet age-specific, disease-specific and cultural needs of patients.

RADT M01AL-critique images for appropriate anatomy, image quality, and patient identification with the clinical instructor.

RADT M01AL-demonstrate competency in principles of radiation protection standards in accordance with California Radiation Health Code (Title 17).
RADT M01AL-produce a minimum of four radiographic exam competencies.

Entrance Skills

RADT M01A

Prerequisite Course Objectives

RADT M01A-name the basic body positions used when positioning patients for radiographic examinations.
RADT M01A-list and describe the terms employed in radiographic positioning using lines, planes, bony landmarks and localization points.
RADT M01A-recall the methods of basic radiation protection for both patient and personnel, especially time, distance and shielding.
RADT M01A-discuss the importance of documenting and reporting patient history and symptoms, and reporting of incidents.
RADT M01A-list the projections, both routine and special, for each anatomical area.
RADT M01A-identify on radiographs and drawings the anatomy and positions for each anatomical area.
RADT M01A-describe and explain each examination assigned utilizing the prescribed position of part, direction of the central ray, anatomical structures, and pathology demonstrated.
RADT M01A-critique each image for diagnostic quality including part position, anatomy visualized, contrast, density, markers, and film size.
RADT M01A-compare and contrast special considerations for trauma in pediatric and geriatric patients with the normal adult.
RADT M01A-discuss the establishment of rapport with the patient considering cultural awareness, clinical situations, communications barriers, and radiation safety concerns.

Entrance Skills

RADT M11

Prerequisite Course Objectives

RADT M11-perform simulated lab procedures utilizing a fellow student as the mock patient using non-energized x-ray equipment.
RADT M11-simulate positioning for exams of the upper and lower extremities, vertebral column, and bony thorax.
RADT M11-align the mock patient, central ray and image receptor system properly.
RADT M11-show the proper way to apply gonadal shielding to the mock patient whenever possible.
RADT M11-perform all the assigned skills lab procedures utilizing a radiographic phantom and the energized x-ray tube.
RADT M11-align the phantom, central ray, and image receptor properly.
RADT M11-select correct technique on the energized console, make the exposure on the phantom, and process the image.
RADT M11-demonstrate radiation protection methods according to the California Radiation Health Code (Title 17).
RADT M11-evaluate and critique the procedure, performance, and the radiographs exposed with the assistance of faculty.

Requisite Justification**Requisite Type**

Corequisite

Requisite

RADT M02A

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Corequisite

Requisite

RADT M12

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Corequisite

Requisite

RADT M02B

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Corequisite

Requisite

RADT M02BL

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Enrollment Limitation

Requisite

Criminal background clearance
 Drug and alcohol clearance
 Proof of freedom from and immunity to communicable disease
 No acrylic or long nails in clinical settings
 Current negative TB test or chest x-ray
 Other (specify)
 Physical examination demonstrating general good health
 No visible tattoos or visible body piercing except single studs in earlobes
 Admission to the Radiologic Technology Program
 CPR BLS Provider card from American Heart Association only
 Los Angeles 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

Prerequisite

Requisite

RADT M01A

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Prerequisite

Requisite

RADT M01AL

Requisite Description

Course in a sequence

Level of Scrutiny/Justification

Required by statute or regulation

Requisite Type

Prerequisite

Requisite

RADT M11

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 | perform all the assigned clinical lab procedures utilizing an actual patient and the clinical affiliate's routine for each procedure. |
| 2 | evaluate, assist and perform radiographic, fluoroscopic and mobile procedures |

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

- | | |
|----|---|
| 1 | execute medical imaging procedures under the appropriate level of supervision. |
| 2 | select technical factors to produce quality diagnostic images with the lowest possible radiation exposure possible. |
| 3 | integrate the use of appropriate and effective written, oral and nonverbal communication with patients, the public and members of the health care team in the clinical setting. |
| 4 | maintain patient confidentiality standards and meet HIPAA (Health Insurance Portability and Accountability Act or 1996) requirements. |
| 5 | provide patient-centered, clinically effective care for all patients regardless of age, gender, disability, special needs, ethnicity or culture. |
| 6 | adapt procedures to meet age-specific, disease-specific and cultural needs of patients. |
| 7 | critique images for appropriate anatomy, image quality, and patient identification with the clinical instructor. |
| 8 | demonstrate efficient documentation of objective and subjective patient history before start of each exam to identify if modification is needed. |
| 9 | demonstrate competency in principles of radiation protection standards in accordance with California Radiation Health Code (Title 17). |
| 10 | produce a minimum of eight radiographic exam competencies from the following: cranium, mobile, surgical, and pediatric exams. |
| 11 | demonstrate competency in selection of appropriate contrast media with direct supervision of licensed Radiologic Technologist. |

Course Content

Lecture/Course Content

none

Laboratory or Activity Content

Radiographic imaging techniques in the skills lab and in a hospital setting for the following procedures:

- 10% - Routine cranium
- 10% - Pediatric procedures
- 20% - Surgical procedures
- 20% - Lower gastrointestinal procedures
- 20% - Upper gastrointestinal procedures
- 20% - Mobile 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

Other (specify)

Participation

Skills demonstrations

Other

Maintenance of clinical portfolio

Instructional Methodology

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

Clinical demonstrations

Field experience/internship

Instructor-guided use of technology

Describe specific examples of the methods the instructor will use:

Clinical coordinator and the faculty liaison will follow up with the clinical instructor or the radiology technologist on consistent basis to be sure that the students get exposed to the American Registry of Radiologic Technologists (ARRT) exam competencies required by the ARRT.

Representative Course Assignments

Writing Assignments

written paperwork needed to process each radiographic exam such as cranium.

written assignments in workbook lab manuals.

written documentation of radiographic exam such as for the vertebral column in clinical portfolio.

Critical Thinking Assignments

Appraise radiographic images of the cranium for quality criteria.

Assess patient condition before start of a fluoroscopic exam of the upper gastrointestinal system and identify if modification is needed per patient history.

Design a step by step "how to" for each exam, such as for an esophogram.

Reading Assignments

Read peer reviewed article on "Gluten Content of Barium Sulfate Suspension Used for Barium Swallows in Patients With Celiac Disease" from journal of the American Society of Radiologic Technology (ASRT)

Read peer reviewed article on "Vertebral Osteomyelitis and the Role of Imaging" from journal of the American Society of Radiologic Technology (ASRT).

Skills Demonstrations

Demonstrate competency on radiography of paranasal sinuses.

Demonstrate competency on performing lower gastrointestinal examination such as a Barium Enema.

Outside Assignments

Representative Outside Assignments

Review positioning pocketbook on daily basis.

Review hospital protocols before start of clinical rotation on daily basis.

Review clinical notes before start of clinical rotation on daily basis.

Articulation

Equivalent Courses at other CCCs

College	Course ID	Course Title	Units
Foothill College	RT 63B	Radiographic Clinical Practicum II	7.5
Cabrillo College	RT 53BL	Radiologic Technology Lab/Clinic II	5.5

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:

Fall 1995

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**

Other Instructional Materials

DescriptionLampignano, John and Leslie E. Kendrick. *Bontrager's Handbook of Radiographic Positioning and Techniques*. 10th ed., Mosby, 2020.**Resource Type**

Textbook

DescriptionLampignano, John and Leslie E. Kendrick. *Textbook of Radiographic Positioning and Related Anatomy*. 10th ed., Mosby, 2020.**Resource Type**

Textbook

Classic Textbook

Yes

DescriptionMcQuillen Martensen, Kathy. *Radiographic Image Analysis*. 5th ed., Saunders, 2019.**Library Resources****Assignments requiring library resources**

Utilize the Library's print and online resources (CINAHL, EBSCO Health Source: Nursing/Academic Edition, and Elsevier ScienceDirect) to find articles from radiography and medical journals.

Sufficient Library Resources exist

Yes

Example of Assignments Requiring Library Resources

Research an interesting radiology-related pathology that the student has observed at their clinical site and present the information to the classroom.

Primary Minimum Qualification

RADIOLOGIC TECHNOLOGY

Review and Approval Dates

Department Chair

06/09/2020

Dean

06/09/2020

Technical Review

09/03/2020

Curriculum Committee

09/15/2020

DTRW-I

MM/DD/YYYY

Curriculum Committee

11/17/2020

Board

MM/DD/YYYY

CCCCO

MM/DD/YYYY

Control Number

CCC000567161

DOE/accreditation approval date

MM/DD/YYYY