

**I. CATALOG INFORMATION**

- A. Discipline: RADIOLOGIC TECHNOLOGY (RADT)
- B. Subject Code and Number: RADT M10AL
- C. Course Title: Introduction to Radiologic Technology Lab

- D. Credit Course units:  
Units: 2.5  
Lecture Hours per week: 0  
Lab Hours per week : 7.5  
Variable Units : No

- E. Student Learning Hours:  
Lecture Hours:  
Classroom hours: 0 - 0  
Laboratory/Activity Hours:  
Laboratory/Activity Hours 131.25 - 131.25

**Total Combined Hours** in a 17.5 week term: 131.25 - 131.25

- F. Non-Credit Course hours per week \_\_\_\_\_

- G. May be taken a total of:  1  2  3  4 time(s) for credit

- H. Is the course co-designated (same as) another course: No  Yes   
If YES, designate course Subject Code & Number: \_\_\_\_\_

- I. Course Description:

Permits the new radiography student to participate in a simulated radiography department setting in the on-campus Radiography skills lab. Provides radiography students opportunities to work with darkroom procedures, equipment manipulation, radiation protection procedure, basic radiographic positions and projections positions and chest and abdomen anatomy and procedures.

- J. Entrance Skills

\*Prerequisite: No  Yes  Course(s)  
Admission to the Moorpark College Radiography Program, RADT M01A and

\*Corequisite: No  Yes  Course(s)  
\_\_\_\_\_

Limitation on Enrollment: No  Yes   
\_\_\_\_\_

Recommended Preparation: No  Yes  Course(s)  
\_\_\_\_\_

Other: No  Yes   
\_\_\_\_\_

## K. Other Catalog Information:

(Formerly RADT M10L.)

## II. COURSE OBJECTIVES

Upon successful completion of the course, a student will be able to:

		<b>Methods of evaluation will be consistent with, but not limited by, the following types or examples.</b>
1	assemble the Clinical Portfolio for clinical practicum and review student handbook.	Quizzes, exam and clinical evaluation.
2	use film-screen cassettes and automatic film processing.	Quizzes, exams and clinical evaluation.
3	operate radiographic unit and accessories.	Quizzes, exams and clinical evaluation.
4	select the prime factors of mA (milliamps), kVp (kilovolt peak) seconds, and distance on the x-ray console.	Quizzes, exams and clinical evaluation.
5	employ the use of radiation shielding devices for both patient and personnel.	Quizzes, exams and clinical evaluation.
6	describe techniques of radiation protection using parameters of time, distance and shielding.	Quizzes, exams and clinical evaluation.
7	apply radiation protection methods during fluoroscopic procedures.	Quizzes, exams and clinical evaluation.
8	apply radiation protection methods during mobile radiographic procedures.	Quizzes, exams and clinical evaluation.
9	practice, through demonstration, the basic body positions used when positioning patients for radiographic examinations.	Quizzes, exams and clinical evaluation.
10	observe, assist and perform radiographic procedures of the chest including adult, pediatric, geriatric, and trauma.	Quizzes, exams and clinical evaluation.
11	observe, assist and perform radiographic procedures of the abdomen including adult, pediatric, geriatric, and trauma.	Quizzes, exams and clinical evaluation.

12	demonstrate the procedures for gowning and gloving for you or another to maintain a sterile field.	Quizzes, exams and clinical evaluation.
13	recall the procedure for emergencies and incidents at the clinical site.	Quizzes, exams and clinical evaluation.
14	demonstrate the appropriate method for lifting, moving, and transporting patients to and from the medical imaging department.	Quizzes, exams and clinical evaluation.
15	demonstrate basic clerical duties in radiology reception such as process the x-ray requisition, use telephone, intercom and paging systems, archive/retrieve images/film, and PACS (picture archiving and communication system).	Quizzes, exams and clinical evaluation.

### III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
<b>Lecture</b> (must total 100%)		
<b>Lab</b> (must total 100%)		
6.00%	Prepare clinical portfolio and review clinical requirements	1, 13, 15
25.00%	Introduction to general X-ray equipment, digital, mobile and fluoroscopic	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15
15.00%	Introduction to darkroom, film processing and digital processing	2, 3, 10, 11, 15
5.00%	Introduction to basic radiation protection	3, 4, 5, 6, 7, 8
5.00%	Orientation to emergency protocol for medical imaging department and hospital rules/regulations	12, 13, 14, 15
10.00%	Orientation to clerical procedures and imaging archives	10, 11, 15
15.00%	Orientation to patient transport, sterile techniques and basic patient positioning	9, 12, 13, 14
5.00%	Introduction to radiographic technique: mAs-time-Kvp-distance	4, 6, 7, 8
7.00%	Chest radiographic procedures	3, 4, 5, 6, 7, 8, 9, 10, 14, 15
7.00%	Abdomen radiographic procedures	2, 3, 4, 5, 6, 7, 8, 9, 11, 14, 15

### IV. TYPICAL ASSIGNMENTS

#### A. Writing assignments

Writing assignments are required. Possible assignments may include, but are not limited to:
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1	keep written clinical daily logs up to date.
2	complete written assignments in workbook lab manuals.
3	complete all written paperwork needed for each exam.

**B. Appropriate outside assignments**

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:	
1	review hospital protocols before the start of rotation.
2	complete assigned readings from journals and text.
3	review patient positioning before the start of rotation.

**C. Critical thinking assignments**

Critical thinking assignments are required. Possible assignments may include, but are not limited to:	
1	assess patient condition before start of chest exam to see if any modification is needed.
2	assess patient condition before start of abdomen exam to see if any modification is needed.
3	appraisal of radiographic image for quality criteria.

**V. METHODS OF INSTRUCTION**

Methods of instruction may include, but are not limited to:

- Distance Education – When any portion of class contact hours is replaced by distance education delivery mode (Complete DE Addendum, Section XV)
- Lecture/Discussion
- Laboratory/Activity
- Other (Specify) Job shadowing and practicing positioning at the clinical site.
- Optional Field Trips
- Required Field Trips

**VI. METHODS OF EVALUATION**

Methods of evaluation may include, but are not limited to:

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> Essay Exam                 | <input checked="" type="checkbox"/> Classroom Discussion    | <input checked="" type="checkbox"/> Skill Demonstration |
| <input type="checkbox"/> Problem Solving Exam       | <input checked="" type="checkbox"/> Reports/Papers/Journals | <input checked="" type="checkbox"/> Participation       |
| <input checked="" type="checkbox"/> Objective Exams | <input type="checkbox"/> Projects                           | <input checked="" type="checkbox"/> Other (specify)     |

Complete at least one clinical competency at the clinical site

**VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS**

Bontrager, Kenneth, and John Lampignano. Textbook of Radiographic Positioning and Related Anatomy. 8th ed. Mosby, 2014.

Bontrager, Kenneth, and John Lampignano. Workbook for Textbook of Radiographic and Positioning and Related Anatomy. 8th ed. Mosby, 2013.

Dutton, Andrea, TerriAnn Linn-Watson, and Lillian Torres. Torres' Patient Care in Imaging Technology. 8th ed. Lippincott, 2013.

**VIII. STUDENT MATERIALS FEES**

No  Yes

**IX. PARALLEL COURSES**

College	Course Number	Course Title	Units
El Camino College	RT 53A	Introduction to Radiologic Technology Laboratory/Clinic	5.5
Bakersfield College	RADT B1A	Introduction to Radiologic Technology	2
Santa Barbara City College	RT 101	Introduction to Radiography	2-3
Antelope Valley College	RADT 101	Introduction to Radiologic Technology	2

**X. MINIMUM QUALIFICATIONS**

**Courses in Disciplines in which Masters Degrees are not expected:**  
 Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

**XI. ARTICULATION INFORMATION**

A. Title V Course Classification:

1. This course is designed to be taken either:

- Pass/No Pass only (no letter grade possible); or
- Letter grade (P/NP possible at student option)

2. Degree status:

Either  Associate Degree Applicable; or  Non-associate Degree Applicable

B. Moorpark College General Education:

1. Do you recommend this course for inclusion on the Associate Degree General Education list?

Yes:  No:  If YES, what section(s)?

- A1 - Natural Sciences - Biological Science
- A2 - Natural Sciences - Physical Science
- B1 - Social and Behavioral Sciences - American History/Institutions
- B2 - Social and Behavioral Sciences - Other Social Behavioral Science
- C1 - Humanities - Fine or Performing Arts
- C2 - Humanities - Other Humanities
- D1 - Language and Rationality - English Composition
- D2 - Language and Rationality - Communication and Analytical Thinking

- E1 - Health/Physical Education
- E2 - PE or Dance
- F - Ethnic/Gender Studies

C. California State University(CSU) Articulation:

1. Do you recommend this course for transfer credit to CSU? Yes:  No:

2. If YES do you recommend this course for inclusion on the CSU General Education list?

Yes:  No:  If YES, which area(s)?

- A1     A2     A3     B1     B2     B3     B4
- C1     C2     D1     D2     D3     D4     D5
- D6     D7     D8     D9     D10     E

D. University of California (UC) Articulation:

1. Do you recommend this course for transfer to the UC? Yes:  No:

2. If YES do you recommend this course for the Intersegmental General Education Transfer Curriculum (IGETC)? Yes:  No:

IGETC Area 1: English Communication

- English Composition
- Critical Thinking-English Composition
- Oral Communication

IGETC Area 2: Mathematical Concepts and Quantitative Reasoning

- Mathematical Concepts

IGETC Area 3: Arts and Humanities

- Arts
- Humanities

IGETC Area 4: Social and Behavioral Sciences

- Anthropology and Archaeology
- Economics
- Ethnic Studies
- Gender Studies
- Geography
- History
- Interdisciplinary, Social & Behavioral Sciences
- Political Science, Government & Legal Institutions
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- Psychology
- Sociology & Criminology

IGETC Area 5: Physical and Biological Sciences (mark all that apply)

- Physical Science Lab or Physical Science Lab only (non-sequence)
- Physical Science Lecture only (non-sequence)
- Biological Science
- Physical Science Courses
- Physical Science Lab or Biological Science Lab Only (non-sequence)
- Biological Science Courses
- Biological Science Lab course
- First Science course in a Special sequence
- Second Science course in a Special Sequence
- Laboratory Activity
- Physical Sciences

IGETC Area 6: Language other than English

- Languages other than English (UC Requirement Only)
- U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)
- U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)

**XII. REVIEW OF LIBRARY RESOURCES**

- A. What planned assignment(s) will require library resources and use?

The following assignments require library resources:

Using the Library's print and online resources, locate radiographic and medical journal articles in the Library's specialized databases.

- B. Are the currently held library resources sufficient to support the course assignment?

YES:  NO:

If NO, please list additional library resources needed to support this course.

**XIII. PREREQUISITE AND/OR COREQUISITE JUSTIFICATION**

Requisite Justification for Admission to the Moorpark College Radiography Program

- A. Sequential course within a discipline.
- B. Standard Prerequisite or Corequisite required by universities.
- C. Corequisite is linked to companion lecture course.

- D. Prerequisite or Corequisite is authorized by legal statute or regulation.  
Code Section: \_\_\_\_\_
- E. Prerequisite or Corequisite is necessary to protect the students' health and safety.
- F. Computation or communication skill is needed.
- G. Performance courses: Audition, portfolio, tryouts, etc. needed.

Requisite Justification for RADT M01A

- A. Sequential course within a discipline.
- B. Standard Prerequisite or Corequisite required by universities.
- C. Corequisite is linked to companion lecture course.
- D. Prerequisite or Corequisite is authorized by legal statute or regulation.  
Code Section: \_\_\_\_\_
- E. Prerequisite or Corequisite is necessary to protect the students' health and safety.
- F. Computation or communication skill is needed.
- G. Performance courses: Audition, portfolio, tryouts, etc. needed.

and

#### **XIV. WORKPLACE PREPARATION**

Required for career technical courses only. A career technical course/program is one with the primary goal to prepare students for employment immediately upon course/program completion, and/or upgrading employment skills.

Detail how the course meets the Secretary of Labors Commission on the Achievement of Necessary Skills (SCANS) areas. (For a description of the competencies and skills with a listing of what students should be able to do, go to:  
<http://www.ncrel.org/sdrs/areas/issues/methods/assment/as7scans.htm>)

The course will address the SCANS competency areas:

1. Resources: the students will identify weekly learning objectives; devise a plan to allocate adequate study time to learn the weekly objectives; learn to organize the steps involved in radiography procedures; meet assignment deadlines and be



prepared to participate in class discussions.

2. Interpersonal: the students will work in collaboration with other students and bring radiographs from the clinical setting and present case studies to strengthen the skills of each member of the class and help gain clinical proficiency; experience the importance of collaboration and of being a team member in the health care field; such collaborative efforts reinforce skills of relating to a diverse population.
3. Information: the students will refer to radiographic techniques charts to select the correct amount of radiation for imaging the body part of interest; use computers in the skills lab, which prepares them to evaluate, organize and communicate information in the clinical facility; make use of professional health care and radiography journals to keep abreast of the state of the art in medical imaging and to stay current with continuing education requirements.
4. Systems: the students will follow hospital protocol for each exam; identify when a change in protocol is needed and communicate this to the supervising technologist for approval.
5. Technology: the students will demonstrate skill when operating radiographic equipment; be able to problem shoot equipment when needed and be proficient when operating hospital RIS (Radiology Information System) and PACS systems.

The course also addresses the SCANS skills and personal qualities:

1. Basic Skills: the students will read professional journals and manuals related to new radiographic techniques and equipment.
2. Thinking Skills: the students will describe how to alter radiographic procedures for the pediatric, geriatric, and trauma patient; describe how to prioritize radiographic procedures when there are multiple exams ordered.
3. Personal Qualities: the students will demonstrate accountability through regular attendance and punctuality in class; demonstrate reliability by completing assignments as instructed and in a timely manner; show respect for each other, others with whom they come in contact, and those in authority.

#### **XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM**

RADT M10AL: Not Applicable

#### **XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM**

RADT M10AL: Not Applicable

#### **XVII. STUDENT MATERIALS FEE ADDENDUM**

Fee Amount: \$36.72(based on current pricing)

This fee is needed to purchase a radiation monitoring device which is needed at all times during clinical hours.

The answers to all five of the following questions must be Yes for a materials fee to be required of students.

**Yes**    **No**

    Are the materials required in this course?

- Are the materials tangible personal property?
- Are the materials owned or controlled by the student?
- If the material is solely available from the district (e.g., packet of hand-outs), does the students cost equal only the districts actual cost?
- Does the material have continuing value outside the classroom?

**XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041**

RADT M10AL: Not Applicable

**XIX. CURRICULUM APPROVAL**

Course Information:

Discipline: RADIOLOGIC TECHNOLOGY (RADT)

Discipline Code and Number: RADT M10AL

Course Revision Category: Outline Update

Course Proposed By:

Originating Faculty Robert Darwin 01/28/2014

Faculty Peer: Guadalupe Aldana 01/28/2014

Curriculum Rep: Linda Loiselle 01/29/2014

Department Chair: Guadalupe Aldana 01/28/2014

Division Dean: Kimberly Hoffmans 01/29/2014

Approved By:

Curriculum Chair: Jerry Mansfield 05/20/2014

Executive Vice President: Lori Bennett 05/20/2014

Articulation Officer: Letrisha Mai 04/29/2014

Librarian: Mary LaBarge 02/05/2014

Implementation Term and Year: Fall 2014

Approval Dates:

Approved by Moorpark College Curriculum Committee: 05/06/2014

Approved by Board of Trustees (if applicable): \_\_\_\_\_

Approved by State (if applicable): \_\_\_\_\_