

I. CATALOG INFORMATION

A. Discipline: RADIOLOGIC TECHNOLOGY (RADT)

B. Subject Code and Number: RADT M10A

C. Course Title: Introduction to Radiologic Technology

D. Credit Course units:

Units: 2

Lecture Hours per week: 2

Lab Hours per week : 0

Variable Units : No

E. Student Learning Hours:

Lecture Hours:

Classroom hours: 35 - 35

Laboratory/Activity Hours:

Laboratory/Activity Hours 0 - 0

Total Combined Hours in a 17.5 week term: 35 - 35

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:

Provides the new radiography student with entry-level information to begin clinical practice with a diverse client population in a radiology department. Emphasizes radiation protection, equipment manipulation and safety, darkroom processing, sterile technique, and career options in radiology. Includes anatomy and positioning for chest and abdomen procedures.

J. Entrance Skills

*Prerequisite: No Yes Course(s)

Admission to the Moorpark College Radiography Program

*Corequisite: No Yes Course(s)

RADT M10AL and RADT M10B

Limitation on Enrollment: No Yes

Recommended Preparation: No Yes Course(s)

Other: No Yes

K. Other Catalog Information:

Admission to the Moorpark College Radiography Program

II. COURSE OBJECTIVES

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

		Methods of evaluation will be consistent with, but not limited by, the following types or examples.
1	discuss the philosophy and regulations of the Moorpark College Radiography program.	Quizzes and exams.
2	describe the practice standards for the radiographer as defined by the The American Society of Radiologic Technologists (ASRT) and the State of California.	Quizzes and exams.
3	recall the historic events and individuals that have contributed greatly to the field of radiology.	Quizzes and exams.
4	identify the advanced imaging modalities and career opportunities in the field of radiology.	Quizzes and exams.
5	describe the structure and function of a typical x-ray department.	Quizzes and exams.
6	discuss the importance of documenting and reporting patient history and symptoms.	Quizzes and exams.
7	identify methods of and barriers to communication and describe how each may be used or overcome effectively during patient education.	Quizzes and exams.
8	describe the ALARA (As Low As Reasonably Achievable) concept.	Quizzes and exams.
9	describe standard positioning terms and procedural considerations of radiographic exams.	Quizzes and exams.
10	describe the prime factors of mA, kVp, seconds, and distance that must be considered in radiographic technique.	Quizzes and exams.
11	identify the different image receptors used for radiographic imaging.	Quizzes and exams.
12	identify key components of an automatic film processor and analyze the steps of the processing cycle by providing the specific action and duration of time for each step.	Quizzes and exams.
13	evaluate and critique radiographic images.	Quizzes and exams.

III. COURSE CONTENT

Estimated %	Topic	Learning Outcomes
Lecture (must total 100%)		
8.00%	Program philosophy, curriculum overview, state and national requirements, clinical competency	1, 2, 3
2.00%	Advanced medical imaging modalities, and career advancement opportunities within the radiology department	4
1.00%	History of medicine and radiography	3
6.00%	Ethical and legal considerations	6, 7, 8
10.00%	Radiographic equipment and image receptors	4, 9, 10, 11, 12
2.00%	Sterile technique	5, 13
15.00%	Basic patient positioning and terminology	9, 10, 11, 13
2.00%	Hospital healthcare team and radiography administration	5, 6, 7
4.00%	Radiographic technique	10
10.00%	Digital and analog image processing	12
10.00%	Radiation protection	8, 9, 10
15.00%	Chest imaging	6, 7, 8, 10, 11, 13
15.00%	Abdominal imaging	6, 7, 8, 10, 11, 13

IV. TYPICAL ASSIGNMENTS**A. Writing assignments**

Writing assignments are required. Possible assignments may include, but are not limited to:

1	written essay questions on exams.
2	written assignment on evaluating radiographic exams for quality.
3	written assignment in chest and abdominal exams in workbook manual.

B. Appropriate outside assignments

Appropriate outside assignments are required. Possible assignments may include, but are not limited to:

1	online research and assignments on chest and abdominal radiographic exams.
2	assigned readings from online modules.

C. Critical thinking assignments

Critical thinking assignments are required. Possible assignments may include, but are not limited to:

1	analyze and critique rejected radiographic images.
2	assess and formulate how to operate radiographic equipment

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) Audio-visual
- Optional Field Trips
- Required Field Trips

VI. METHODS OF EVALUATION

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

- Essay Exam
- Classroom Discussion
- Skill Demonstration
- Problem Solving Exam
- Reports/Papers/Journals
- Participation
- Objective Exams
- Projects
- Other (specify)

Review and analysis of radiographic exams for classroom presentation.

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS

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

Bontrager, Kenneth, and John Lapignano. Workbook for Textbook of Radiographic 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.

Martensen, Kathy McQuillen. Radiographic Image Analysis. 3rd ed. Sanders, 2010.

VIII. STUDENT MATERIALS FEES

- No Yes

IX. PARALLEL COURSES

College	Course Number	Course Title	Units
Los Angeles City College	RAD TEC 200	Introduction to Radiologic Technology	3
City College of San Francisco	DMI 49	Introduction to Radiologic Technology	3
Mt. San Antonio College	RADT 52A	Techniques of Radiologic Technology	5

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 | <input type="checkbox"/> | A2 | <input type="checkbox"/> | A3 | <input type="checkbox"/> | B1 | <input type="checkbox"/> | B2 | <input type="checkbox"/> | B3 | <input type="checkbox"/> | B4 | <input type="checkbox"/> |
| C1 | <input type="checkbox"/> | C2 | <input type="checkbox"/> | D1 | <input type="checkbox"/> | D2 | <input type="checkbox"/> | D3 | <input type="checkbox"/> | D4 | <input type="checkbox"/> | D5 | <input type="checkbox"/> |
| | <input type="checkbox"/> | D6 | <input type="checkbox"/> | D7 | <input type="checkbox"/> | D8 | <input type="checkbox"/> | D9 | <input type="checkbox"/> | D10 | <input type="checkbox"/> | E | <input type="checkbox"/> |

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
 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:

Radiographic and medical journal reading assignments which may use the Library's print and online resources.

- 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 M10AL

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

Requisite Justification for RADT M10B

- 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.

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 technique 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 learn to follow specific protocols for the safe use of radiation production equipment.
5. Technology: the students will differentiate between digital and analog imaging equipment.

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 and 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 M10A: Not Applicable

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

RADT M10A: Not Applicable

XVII. STUDENT MATERIALS FEE ADDENDUM

RADT M10A: Not Applicable

XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041

RADT M10A: Not Applicable

XIX. CURRICULUM APPROVAL

Course Information:

Discipline: RADIOLOGIC TECHNOLOGY (RADT)

Discipline Code and Number: RADT M10A

Course Revision Category: Outline Update

Course Proposed By:

Originating Faculty: Robert Darwin 01/28/2014

Faculty Peer: Guadalupe Aldana 01/31/2014

Curriculum Rep: Linda Loiselle 01/29/2014

Department Chair: Carol Higashida 02/03/2014

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 04/29/2014

Implementation Term and Year: Summer 2014

Approval Dates:

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

Approved by Board of Trustees (if applicable): _____

Approved by State (if applicable): _____