
Course Title: RADIOGRAPHIC PROCEDURES I
Course Prefix/No.: RAD 130
Lecture Hours: 2.0
Lab Hours: 3.0
Credit Hours: 3.0

[Distance Learning Attendance/VA Statement](#)
[Textbook Information](#)

COURSE DESCRIPTION

This course provides an introduction to radiographic procedures. Positioning of the chest, abdomen, and extremities will be included.

COURSE COMPETENCIES

Upon successful completion of this course, the student should be able to complete the following associated with chest procedures, abdomen procedures, procedures of the upper and lower extremities, the bony thorax, and positioning of the spine:

MODULE I: Positioning Terminology

- Identify planes of the body
- Define positioning terms of proximity and motion
- Describe anatomical relationships in accurate terminologies
- Locate structures using directional terminology
- Differentiate projectional from positional terms.

MODULE II: Chest and pulmonary imaging

- Name and identify, radiographically, all pertinent anatomical structures of the Chest cavity.
- Demonstrate proper central ray location for examinations of the Chest.
- Demonstrate proper part, tube, and IR alignment for all examinations of the Chest region.
- Demonstrate correct use of lead markers in Chest imaging.
- Demonstrate proper image identification procedure.
- Utilize necessary radiation protection as outlined by ALARA.
- Critique finished radiographs for radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine correct exposure factors for abdominal imaging examinations.

MODULE III: Abdomen Imaging

- Name and identify, radiographically, all pertinent anatomical structures of the Abdominal cavity

- Demonstrate proper part, tube, and IR alignment for all examinations of the abdomen and urinary structures.
- Demonstrate proper central ray location for examinations of the abdominal cavity and urinary structures.
- Demonstrate proper lead marker use in abdominal imaging.
- Utilize necessary radiation protection as outlined by ALARA.
- Critique finished radiographs for appropriate radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine correct exposure factors for abdominal imaging examinations.

MODULE IV: Positioning of the Upper Extremities

- Name and identify, radiographically, all pertinent anatomical structures of the Upper extremities.
- Demonstrate proper part, tube and IR alignment for all examinations of the Upper extremities.
- Demonstrate proper central ray locations for examinations of the Upper extremities.
- Utilize proper lead marker identification for Upper extremity exams.
- Utilize necessary radiation protection as outline by ALARA.
- Critique finished radiographs for appropriate radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine appropriate corrective action for unacceptable images.

MODULE V: Positioning of the Lower Extremities

- Name and identify, radiographically, all pertinent anatomical structures of the Lower extremities.
- Demonstrate proper part, tube and IR alignment for all examinations of the Lower extremities.
- Demonstrate proper central ray locations for examinations of the Lower extremities.
- Utilize proper lead marker identification for Lower extremity exams.
- Utilize necessary radiation protection as outline by ALARA.
- Critique finished radiographs for appropriate radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine appropriate corrective action for unacceptable images.

MODULE VI: Positioning of the Vertebral Column

- Name and identify, radiographically, all pertinent anatomical structures of the Vertebral column.
- Demonstrate proper part, tube and IR alignment for all examinations of the Vertebral column.
- Demonstrate proper central ray locations for examinations of the Vertebral column.
- Utilize proper lead marker identification for Vertebral column exams.
- Utilize necessary radiation protection as outline by ALARA.
- Critique finished radiographs for appropriate radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine appropriate corrective action for unacceptable images.

MODULE VII: Positioning of the Ribs and Sternum (Bony Thorax)

- Name and identify, radiographically, all pertinent anatomical structures of the bony thorax.
- Demonstrate proper part, tube and IR alignment for all examinations of the bony thorax.
- Demonstrate proper central ray locations for examinations of the bony thorax.
- Utilize proper lead marker identification for exams of the bony thorax.
- Utilize necessary radiation protection as outlined by ALARA.
- Critique finished radiographs for appropriate radiographic quality.
- Analyze patient conditions to select appropriate positioning options.
- Determine appropriate corrective action for unacceptable images.

METHODS OF INSTRUCTION

Principles will be introduced by the instructor through lecture, viewing audio-visual materials, laboratory exercises, demonstration, simulated practice, and viewing radiographs. Additional methods designated for remediation or enrichment will be individually tailored as needed.

COURSE REQUIREMENTS

All students are responsible for attaining competencies through the completion of the following course requirements:

- attending class (See *Handbook and Catalog* for attendance policy)
- reading all assigned materials as listed in syllabus
- participating in all class activities and tests as scheduled and as listed in syllabus and addendum
- completing CAI lab assignments
- submitting all required assignments as outlined in the course addendum

ACADEMIC INTEGRITY

The policies stated in the YTC *Handbook and Catalog* and Radiologic Technology *Student Manual* will be enforced. Any student violating the policy will be subject to academic discipline as stated in the manual.

ATTENDANCE POLICY

The attendance policy stated in the YTC *Handbook and Catalog* and Radiologic Technology *Student Manual* will be enforced.

GRADING PROCEDURES

Unit tests will be given as outlined in the syllabus. Any pop quizzes may be unannounced and will be averaged together at the end of the quarter to be given the weight of one unit test. Pop quizzes may not be made up if missed. A minimum grade of 80% is required on all unit tests to pass the test.

All students are required to take the final exam. However, an exemption policy exists as such:

- Any student who makes a grade lower than 80% on any unit test and does not have an A average at the end of the semester will be required to average in the grade of the comprehensive final exam as part of their final course grade at the end of the semester.
- However, if any student makes a grade lower than 80% on one single unit test and still maintains an A average at the end of the semester, the student will not be required to average the final exam grade as part of their final score (exempt status).
- Any student who does **not score below an 80%** on any test throughout the semester, regardless of their average, will also be considered exempt from the use of the final exam grade unless it improves the student's overall average.

Any student that requires more than one make-up test during the semester will forfeit their exemption opportunity. The final exam will count as 1/3 of the final grade and the unit tests will count as 2/3 of the final grade.

As with all RAD courses, the grading scale is as follows:

GRADE	SCORE
A	93-100
B	86-92
C	80-85
D	70-79
F	Below 70

See *Student Manual* and addendum for additional information.

MAKE-UP TESTS

Students are limited to 2 make-up tests per semester, per course. In order for a student to make up a missed, scheduled test, the student must first notify the instructor to assure that the test is available in the Assessment Center and determine eligibility and testing appointment time. Students should report 10 minutes before the scheduled test time. A picture ID is required at the time of the test—NO EXCEPTIONS. If the student misses his/her appointment for a given test, the test will be returned to the instructor (or closed if electronic) and a grade of "0" will be recorded. Tests must be made up within **one week** of the original test date except in extenuating circumstances (at the discretion of the instructor). It is the student's responsibility to contact their instructor for arrangements to make up a test. A student's abuse of the privilege to make up exams may result in the student's withdrawal from the course. Final exams will not be allowed to be made up. If a student is non-exempt, they will receive a 0 for their grade.

PERFORMANCE OBJECTIVES

Performance objectives for each topic (unit) will be distributed at the beginning of each unit that is studied.

ENTRY-LEVEL SKILLS

A student entering this course must be enrolled in the second semester of the Radiologic Technology Program.

PREREQUISITES

RAD 102, RAD 101, RAD 152, BIO 210

COREQUISITES

RAD 110, RAD 165, RAD 105, BIO 211 (or completion)

Disabilities Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact the Special Resources Offices (SR) at 803-327-8007 in the 300 area of Student Services. The SRO coordinates reasonable accommodations for students with documented disabilities.