

MASTER SYLLABUS

COURSE NUMBER AND TITLE:

RAD 112-3 Radiographic Anatomy and Positioning

COURSE DESCRIPTION:

Designed to provide the student radiographer with didactic instruction leading to the development of clinical competencies. It serves as a foundation for the progression towards advanced clinical knowledge. Radiographic anatomy and positioning of the extremities, chest, abdomen, vertebral column, and routine fluoroscopic procedures will be stressed. Also, emphasis is placed on the soft-tissue structures demonstrated by radiographs of these areas. The principles of radiation protection for the patient and for the radiographer are stressed. Routine radiographic positioning common to most health facilities will be described. Must be taken concurrently with RAD 112L. If RAD 112L is dropped, then RAD 112 must be dropped.

All Radiography students must pass each of their Radiologic Science courses (RAD) with a grade of "C" or better (the minimum requirement) in order to satisfy Program requirements, and stay in the Program.

Any Radiography student that does not meet the minimum course requirement (a course grade of "C" or better) will not be allowed to continue in the Program. The student is allowed to re-apply to the Program the following year.

COURSE OBJECTIVES:

1. Describe and demonstrate the body planes and associated medical terminology.
2. Apply the terminology associated with diagnostic radiography.
3. Given a diagram and/or radiograph locate the anatomy specific to the upper extremity, shoulder girdle, chest, bony thorax and abdomen.
4. Given a diagram and/or radiograph locate the anatomy specific to the lower extremity, pelvic girdle, and vertebral column.
5. Given a diagram and/or radiograph locate the anatomy specific to the urinary system and the digestive system.
6. Given the exposure factors for a specific body part, calculate the appropriate mAs and kVp values, to produce a desirable radiograph containing an image quality that is equal to, or better than the image quality displayed in the Merrill's positioning atlases.
7. Identify the anatomy visualized on radiographs produced in the lab and in the clinical settings.
8. Identify the patient preparation and the room readiness procedures required for imaging the urinary system and the complete digestive system.

COURSE OUTLINE:

PERCENTAGE:

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| 1. Positioning terminology | 10% |
| 2. Exposure factors | 5% |
| 3. Upper extremity & Shoulder girdle | 20% |
| 4. Thoracic cavity | 15% |

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| 5. Abdomen | 10% |
| 6. Lower extremity & Pelvic girdle | 20% |
| 7. Complete vertebral column | 10% |
| 8. Contrast exams: Urinary system & Digestive system | 10% |

MEANS OF STUDENT EVALUATION:

Grading Scale

93 - 100 =A

85 - 92 =B

75 - 84 =C

0 - 74 =F

PREREQUISITE: AH 241 with a grade of C or better. Restricted to RADS majors.

Co-REQUISITES: RAD 102, RAD 112L and RAD 202

TEXTBOOKS:

1. Frank, E.D., Long, B.W. & Smith, B.J. (Ed.). (2019). Merrill's Atlas of Radiographic Positions and Radiologic Procedures, 14th edition. 3 Volume Set. St. Louis, MO: Elsevier Science/Mosby, Inc.
2. Frank, E.D., Long, B.W. & Smith, B.J. (Ed.). (2019). Workbook for Merrill's Atlas of Radiographic Positions and Radiologic Procedures, 14th edition. Publisher: St. Louis, MO: Elsevier Science/Mosby, Inc.
3. Frank, E.D., Long, B.W. & Smith, B.J. (Ed.). (2019). Merrill's Pocket Guide to Radiography, 14th edition. Publisher: St. Louis, MO: Elsevier Science/Mosby, Inc.
4. Optional: an encyclopedic medical dictionary such as Dorland, Miller-Keane or Taber's.