
RADIOLOGIC TECHNOLOGY

RAD101 Introduction to Radiologic Technology (1 credit)

This course introduces the duties of a radiologic technologist. Topics include observing patient care, learning how radiologic exams are ordered and what happens to them once they are completed, and providing students with a basic understanding of what it means to choose radiologic technologist as a career, including before, during, and after college.

(Radiologic Technology & Pre-RadTech majors only)

Instructional Hours: 1

Prerequisite: ENG051 & MAT051

Offered SUMMER semester

RAD110 Radiologic Technology I (Patient Care & Exposure I) (4 crs)

This course provides a foundation for radiologic technology. Topics include patient care, assessment and safety, ethical practice, and documentation. The principles of radiographic exposure, selection, and manipulation needed to produce quality radiographic images are also included. Theoretical principles and mathematical calculations of basic x-ray production, characteristics of quality radiographs, exposure factors, and control of radiographic image qualities are discussed. Students will have the opportunity to practice skills in the laboratory setting and demonstrate patient care skills in a clinical setting.

(Radiologic Technology majors only)

Instructional Hours: 3 Laboratory Hours: 1

Prerequisite: RAD 101 with a grade of at least C+

Offered FALL semester

RAD111 Radiologic Technology II (Exposure II & Equipment) (4 crs)

This course covers the principles of equipment operation and maintenance of radiographic imaging equipment. It includes x-ray tube maintenance and malfunctions, image intensified and digital fluoroscopic imaging, digital imaging systems, tomographic imaging, automatic exposure control systems, special imaging equipment, and the development of radiographic exposure charts.

(Radiologic Technology majors only)

Instructional Hours: 3 Laboratory Hours: 1

Prerequisite: RAD110, RAD130, RAD140 with a grade of at least C+

Offered SPRING semester

RAD130 Radiologic Procedures I (Procedures & Positioning I) (4 crs)

This course covers positioning terminology, anatomy and procedure protocols for chest, upper extremities, and lower extremities procedures. Students will demonstrate all of these procedures in the laboratory setting.

(Radiologic Technology majors only)

Instructional Hours: 3 Laboratory Hours: 1

Prerequisite: RAD 101 with a grade of at least C+

Offered FALL semester

RAD131 Radiologic Procedures II (Procedures & Positioning II) (4 crs)

This course covers positioning terminology, anatomy and procedure protocols for bony thorax, shoulder, spine, pelvis, pediatric and geriatric imaging. Students will demonstrate all of these procedures in the laboratory setting.

(Radiologic Technology majors only)

Instructional Hours: 2 Laboratory Hours: 2

Prerequisite: RAD110, RAD130, RAD140 with a grade of at least C+

Offered SPRING semester

RAD140 Clinical Radiology I

(3 credits)

Perform fundamental radiologic procedures of the chest, abdomen, and extremities to include shoulder, and pelvis in a supervised clinical setting while practicing infection control, assessment skills, body mechanics, radiation safety, patient education and discharge instructions.

(Radiologic Technology majors only)

Laboratory Hours: 3

Prerequisite: RAD 101 with a grade of at least C+

Offered FALL semester

RAD141 Clinical Radiology II

(4 credits)

Perform radiologic procedures in a supervised clinical setting to include infection control, assessment skills, patient education and discharge instruction. Demonstrate continued competence of radiographic exams of the extremities, chest, abdomen, shoulder, and pelvis and introduce intermediate exams including spinal column, fluoroscopy, bony thorax and headwork. Students will exhibit critical thinking skills as they pertain to trauma positioning and mobile radiography at the bedside and in the operating room.

(Radiologic Technology majors only)

Laboratory Hours: 4

Prerequisite: RAD110, RAD130, RAD140 with a grade of at least C+

Offered SPRING semester

RAD210 Radiologic Technology III (Radiation Safety & Protection) (4 crs)

Investigate the principles of the effects of radiation on human cells. Examine the responsibility of the radiographer to protect patients, personnel and the public from the effects of radiation. Discuss and apply calculations of permissible radiate dosage and the effect of laws and regulations on radiation protection.

(Radiologic Technology majors only)

Instructional Hours: 4

Prerequisite: RAD110, RAD130, RAD140, (RAD288 or RAD245) with a grade of at least C+

Offered FALL semester

RAD211 Radiologic Technology IV (Pathology & QC/Digital Imaging and Acquisition) (3 credits)

This course covers terminology, etiology, and disease processes of various pathological disorders, especially as it pertains to radiographic imaging. Systemic classification of diseases and radiographic findings are discussed, emphasizing the relationship between imaging modalities and the diagnosis of disease.

(Radiologic Technology majors only)

Instructional Hours: 3

Prerequisite: RAD210, RAD230, RAD241 with a grade of at least C+

Offered SPRING semester

RAD230 Radiologic Procedures III (Procedures & Positioning III) (3 crs)

This course covers positioning terminology and anatomy and procedure protocols for contrast studies, fluoroscopy, cranial imaging, and all special views, and trauma imaging. Students will demonstrate all of these procedures in the laboratory setting.

(Radiologic Technology majors only)

Instructional Hours: 2 Laboratory Hours: 1

Prerequisite: RAD240 with a grade of at least C+

Offered FALL semester

RAD240 Clinical Radiology III**(5 credits)**

Offered occasionally

Demonstrate continued competence of previously learned radiologic procedures in a supervised clinical setting to include advanced specialized fluoroscopic exams and atypical orthopedic procedures. Apply advanced patient management techniques that include ECG analysis, vital signs, oxygen, and venipuncture skills to enhance the student radiographers' patient care management skills in the clinical setting.

(Radiologic Technology majors only)

Laboratory Hours: 5

Prerequisite: RAD111, RAD131, RAD141 with a grade of at least C+

Offered SUMMER semester

RAD241 Clinical Radiology IV**(3 credits)**

Perform radiologic procedures in a supervised clinical setting to include routine and specialized procedures. Apply advanced patient management skills in the clinical setting. Modify radiographic positioning and selection of exposure parameters based on patient evaluation and condition.

(Radiologic Technology majors only)

Laboratory Hours: 3

Prerequisite: RAD240 with a grade of at least C+

Offered FALL semester

RAD242 Clinical Radiology V**(2 credits)**

Demonstrate entry-level practitioner skills in a supervised clinical setting to include global competence in the areas of radiographic positioning, patient assessment, effective communication, exposure parameter settings, and organizational and patient management skills.

(Radiologic Technology majors only)

Laboratory Hours: 2

Prerequisite: RAD210, RAD230, RAD241 with a grade of at least C+

Offered SPRING semester

RAD280 Ethics & Law in Medical Imaging**(2 credits)**

This course introduces students to current issues in health care and in Radiologic Technology. A wide range of topics are explored from a theoretical, ethical, social, and economic point of view. Professional issues such as interviewing, upper division programs, and radiologic technology organizations are also discussed.

(Radiologic Technology majors only)

Instructional Hours: 2

Prerequisite: RAD210, RAD230, RAD241 with a grade of at least C+

Offered SPRING semester

RAD294 Radiologic Technology Capstone**(1 credit)**

This course offers the student the time to prepare themselves for the ARRT certification examination that they must take upon graduating from an accredited program. Students will meet two days each week and will review all material demonstrated throughout their 2-year program at Garrett College. Students will also have the opportunity to attend the annual state conference for additional review.

(Radiologic Technology majors only)

Instructional Hours: 1

Prerequisite: RAD210, RAD230, RAD241 with a grade of at least C+

Offered SPRING semester

RAD290-299 Special Topics in Radiology**(1 – 3 credits)**

Students will study a topic of special interest under supervision of a College faculty member.

(Radiologic Technology majors only)

Instructional Hours: 1 - 3

Prerequisite: Permission of Instructor